

**Department of Fish and Game  
Wildlife and Habitat Data Analysis Branch  
Natural Diversity Data Base**

**List of California Terrestrial Natural Communities Recognized by the Natural Diversity Data Base**  
December 1997 Edition

Introduction:

This document supersedes all other lists of terrestrial natural communities developed by the Natural Diversity Data Base (NDDB). It is based on the classification put forth in "A Manual of California Vegetation" (Sawyer and Keeler-Wolf 1995). However, it is structured to be compatible with previous NDDB lists (e.g., Holland 1986). For those familiar with the Holland numerical coding system you will see a general similarity in the upper levels of the hierarchy. You will also see a greater detail at the lower levels of the hierarchy. The numbering system has been modified to incorporate this richer detail. Decimal points have been added to separate major groupings and two additional digits have been added to encompass the finest hierachal detail.

One of the objectives of the Manual of California Vegetation, MCV, was to apply a uniform hierarchical structure to the State's vegetation types. Quantifiable classification rules were established to define the major floristically defined groups, called series and associations. In this document, the series level is denoted in the center triplet of the coding system and the associations in the right hand pair of numbers to the left of the final decimal. The numbers of the series in the center triplet attempt to denote relationships in floristic similarity. For example, the Chamise-Eastwood Manzanita series (37.106.00) is more closely related to the Chamise-Cupleaf Ceanothus series (37.105.00) than it is to the Chaparral Whitethorn series (37.205.00).

**EXAMPLE OF CODE:**

Denotes general physiognomic and physical location (e.g. riparian and bottomland habitat)  
| Denotes type of general habitat (riparian forest and woodland)  
| | Denotes floristic vegetation series (Sycamore series)  
| | | Denotes association (California Sycamore/Soft Chess association)  
| | { } { }

**6 1 . 3 1 1 . 0 2**

In portions of this list numbered place-holders have been added. These are not formal units of classification, but simply serve to further clarity relationships between some of the more complex vegetation types. For example, several vegetation series are characterized by having Chamise (*Adenostoma fasciculatum*) as a major component. Thus the code 37.100.00 chaparral with Chamise was erected to show that such series as 37.105.00 Chamise-Cupleaf Ceanothus, 37.106.00 Chamise-Eastwood Manzanita, etc- are included in this cluster of chaparral types characterized by high cover of chamise. Other examples in this vain are vegetation with pines dominant (87.000.00), vegetation with fir dominant (88.000.00), and vegetation dominated by tree oaks (71.000.00). Because the classification for California is incomplete, the detail in the finest resolution of the hierarchy, the associations, is not uniform. Associations are defined quantitatively through a classification procedure using numerical comparisons between related vegetation sampling plots. These comparisons have been made only for a portion of all vegetation stands in California. The U.S. Forest Service has been most active in defining associations.

Thus, one will notice the rich detail of the classification in various forest series such as the Douglas-fir, Red fir, White fir, and the Ponderosa pine. Large areas of the State (e.g., the deserts) have not been widely sampled, but soon will be, thus the classification detail will continue to change and will be updated accordingly. For the identification of these series and associations please refer to the Manual of California Vegetation and to the cited literature. Details about the definitions of series, their species composition, distribution, and ecological requirements may also be sought in the MCV. (*Available from The California Native Plant Society*)

The primary purpose of the NDDB classification is to assist in the location and determinations of significance and rarity of various vegetation types. Thus, ranking of natural communities by their rarity and threat is an important facet of the classification. In this document, as in previous NDDB community lists, asterisks (\*) denote communities that are either known or believed to be of high priority for inventory in NDDB. If a series is asterisked, this means that all of the associations within it will also be considered of high inventory priority.

A special issue arises as a result of the conversion of the classification. Because NDDB has accumulated many location records for certain rare community types now considered differently in the classification, it is very important that this critical conservation information is not lost as a result of taxonomic change. Thus, in this document one will notice instances where a community is listed either at the series or association level with an accompanying bracketed number. This number is the Holland code which was used for it in the older classification. (e.g. 52.100.00 Fresh-Brackish Water Marsh {52200})

Because, in some cases, we are unsure of how this community type relates to the new hierarchy (it has not been quantitatively defined), it is placed into the hierarchy in its most likely position. However, no information will be lost and it will continue to be maintained in NDDB until all occurrences of the community can be properly placed into the quantitative hierarchy. This fact points to the need for assistance from field investigators to revisit these sites and provide information on the species cover so we can convert to the new classification. We **relish** information on communities, whether it be a new record or re-assessment of existing information. Please contact us at NDDB (916) 324-6857, and we can help you determine the most useful way to collect information on communities.

TERRESTRIAL SECTION (★indicates a series or association considered rare and worthy of consideration by NDDB)  
\*04/98\*

20.000.00 DUNES

21.000.00 Coastal Dunes

- 21.010.00 Active Coastal Dunes{21100}
- 21.020.00 Coastal Foredunes
- 21.030.00 Central Fordunes{21220}
- 21.040.00 Southern Foredunes{21230}

★21.100.00 Sand-verbena-Beach Bursage [*Abronia villosa-Ambrosia chamissonis*] {21210}

★21.100.01 Beach Morning Glory- Dune Sagebrush [*Calystegia soldanella-Artemisia pycnocephala*] (Bluestone 1981)

★21.100.02 Seashore Bluegrass - Dune Sagebrush [*Poa douglasii- Artemisia pycnocephala*] (Duebendorfer 1989)

★21.100.03 Beach Bursage-Seaside Woolly-sunflower [*Ambrosia chamissonis-Eriophyllum staechadifolium-Lupinus arboreus*] (Holton & Johnson 1979)

★21.100.04 Seaside Woolly-sunflower - Yellow Bush Lupine [*Eriophyllum staechadifolium-Lupinus arboreus*] (Holton & Johnson 1979)

★21.100.05 Active North Coastal Dunes (Johnson 1963)

★21.100.06 Seashore Bluegrass - Beach Pea [*Poa douglasii-Lathyrus littoralis*] (Parker 1974 & Johnson 1977)

★21.100.07 Strand (Williams & Potter 1972)

★21.100.08 Northern Dune Scrub{21310}

★21.100.09 Central Dune Scrub{21320}

★21.100.10 Southern Dune Scrub{21330}

21.200.00 Non-native Iceplant

22.000.00 Interior Dunes

★22.010.00 Active Desert Dunes{22000}

★22.100.00 Desert Sand-verbena [*Abronia villosa*]

★22.200.00 Antioch Dunes Unique Stands{23100}

30.000.00 SCRUB AND CHAPARRAL

32.000.00 Coastal Scrub{32000}

- 32.005.00 Riversidian Sage Scrub
- 32.005.01 Upland Riversidian Sage Scrub
  - ★32.005.02 Riversidian Alluvial Fan Sage Scrub{32720}
- 32.010.00 California Sagebrush [*Artemisia californica*]
- 32.010.01 California Sagebrush [*Artemisia californica*] (Kirkpatrick & Hutchinson 1977, Gordon & White 1994)
  - 32.010.02 California Sagebrush - Deer Weed [*Artemisia californica-Lotus scoparius*] (DeSimone & Burk 1992)
  - 32.010.03 California Sagebrush - Bush Penstemon [*Artemisia californica-Keckilla cordifolia*] (Gordon & White 1994)
  - 32.010.04 California Sagebrush - Purple Sage [*Artemisia californica-Salvia leucophylla*] (Gordon & White 1994)
- 32.020.00 Black Sage [*Salvia mellifera*]
- 32.020.01 Black Sage - Laurel Sumac [*Salvia mellifera-Malosma laurina*] (Kirkpatrick & Hutchinson 1977)
  - 32.020.02 Black Sage - California Buckwheat [*Eriogonum fasciculatum*] (Kirkpatrick & Hutchinson 1977)
  - 32.020.03 Black Sage [*Salvia mellifera*] (Malanson 1984)
  - 32.020.04 Black Sage - California Encelia [*Salvia mellifera-Encelia californica*] (Malanson 1984)
  - ★32.020.05 Black Sage - Coast Prickly-pear [*Opuntia littoralis* and hybrids] (Mooney 1977)
- ★32.030.00 White Sage [*Salvia apiana*]
- 32.040.00 California Buckwheat [*Eriogonum fasciculatum*]
- 32.040.01 California Buckwheat - California Figwort - Phacelia [*Eriogonum fasciculatum-Scrophularia californica-Phacelia ramosissima*] (Kirkpatrick & Hutchinson 1977)
  - 32.040.02 California Buckwheat [*Eriogonum fasciculatum*] (Gordon & White 1994)
  - ★32.040.03 California Buckwheat - Big Sagebrush [*Eriogonum fasciculatum-Artemisia tridentata*] (Gordon & White 1994)
  - ★32.040.04 California Buckwheat Alluvial Fan (Gordon & White 1994)
- ★32.041.00 Wright's Buckwheat [*Eriogonum wrightii*]
- ★32.050.00 California Encelia [*Encelia californica*]
- 32.050.01 California Encelia - California Sagebrush [*Encelia californica-Artemisia californica*] (Kirkpatrick & Hutchinson 1977)
  - ★32.050.02 California Encelia [*Encelia californica*] (Malanson 1984)

- 32.060.00 Coyote Brush [*Baccharis pilularis*]{32110}
- ★32.060.01 Coyote Brush/Seaside Woolly-sunflower [*Baccharis pilularis-Eriophyllum staechadifolium*] (Baxter 1992)
  - ★32.060.02 Coyote Brush / Tufted Hairgrass [*Baccharis pilularis/Deschampsia cespitosa*] (Elliott & Wehausen 1974)
  - ★32.060.03 Coyote Brush / Creeping Ryegrass [*Baccharis pilularis/Leymus triticoides*] (Fiedler & Leidy 1987)
  - 32.060.04 Coyote Brush / Sword Fern [*Baccharis pilularis/Polystichum munitum*] (Grams *et al.* 1977)
  - 32.060.05 Coyote Brush - California Sagebrush [*Baccharis pilularis-Artemisia californica*] (Heady *et al.* 1977)
  - 32.060.06 Coyote Brush - Yellow Bush Lupine [*Baccharis pilularis-Lupinus arboreus*] (Parker 1974 in Barbour & Johnson 1977)
  - 32.060.07 Coyote Brush / European Beachgrass [*Baccharis pilularis/Ammophila arenaria*] (Parker 1974 in Barbour & Johnson 1977)
  - 32.060.08 Coyote Brush / California Figwort [*Baccharis pilularis/Scrophularia californica*] (Parker 1974 in Barbour & Johnson 1977)
- 32.070.00 Scalebroom [*Lepidospartum squamatum*]
- ★32.070.01 California Buckwheat - Scalebroom [*Eriogonum fasciculatum-Lepidospartum squamatum*] (Gordon & White 1994)
  - ★32.070.02 Scalebroom - Hairy Yerba Santa - Chaparral Yucca [*Lepidospartum squamatum-Eriodictyon crassifolium-Yucca whipplei*] (Kirkpatrick & Hutchinson 1977)
- 32.080.00 Yellow Bush Lupine [*Lupinus arboreus*]
- 32.080.01 Yellow Bush Lupine - Ripgut [*Lupinus arboreus-Bromus diandrus*] (Duebendorfer 1989)
  - 32.080.02 Yellow Bush Lupine [*Lupinus arboreus*] (Holton & Johnson 1979)
  - ★32.080.03 Yellow Bush Lupine-Heather Goldenbush [*Lupinus arboreus-Ericameria ericoides*] (Holton & Johnson 1979)
  - 32.080.04 Yellow Bush Lupine - Vernal Grass [*Lupinus arboreus-Anthoxanthum odoratum*] (Hektner & Foin 1977)
  - 32.080.05 Yellow Bush Lupine - California Figwort [*Lupinus arboreus-Scrophularia californica*] (Parker 1974)
- 32.090.00 Purple Sage [*Salvia leucophylla*]
- 32.090.01 Purple Sage - California Sagebrush [*Salvia leucophylla-Artemisia californica*] (Kirkpatrick & Hutchinson 1977)
  - 32.090.02 Purple Sage - Laurel Sumac [*Salvia leucophylla-Malosma laurina*] (Kirkpatrick & Hutchinson 1977)

- 32.100.00 California Buckwheat - White Sage [*Eriogonum fasciculatum-Salvia apiana*] (Gordon & White 1994)
- 32.100.01 California Buckwheat - White Sage [*Eriogonum fasciculatum-Salvia apiana*] (Gordon & White 1994)
- 32.110.00 California Sagebrush - California Buckwheat [*Artemisia californica-Eriogonum fasciculatum*]
- 32.110.01 California Sagebrush - California Buckwheat - Sugar Bush [*Artemisia californica-Eriogonum fasciculatum-Rhus ovata*] (Gordon & White 1994)
- 32.110.02 California Sagebrush - California Buckwheat - White Sage [*Artemisia californica-Eriogonum fasciculatum-Salvia apiana*] (Gordon & White 1994)
- 32.120.00 California Sagebrush - Black Sage [*Artemisia californica- Salvia mellifera*]
- 32.120.01 California Sagebrush - Black Sage [*Artemisia californica-Salvia mellifera*] (DeSimone & Burk 1992)
- 32.120.02 Black Sage - California Sagebrush [*Salvia mellifera-Artemisia californica*] (DeSimone & Burk 1992)
- ★32.130.00 Salal - Black Huckleberry [*Gaultheria shallon-Vaccinium ovatum*] {32120}
- 32.140.00 Mixed Sage
- ★32.150.00 Coast Prickly Pear [*Opuntia littoralis*]
- ★32.160.00 Dune Lupine - Goldenbush [*Lupinus chamissonis-Isocoma menziesii*] {21330}
- 32.160.01 Heather Goldenbush [*Ericameria ericoides*] (Bluestone 1981)
- 32.160.02 Dune Lupine [*Lupinus chamissonis*] (Holton & Johnson 1979)
- 32.160.03 Dune Lupine - Heather Goldenbush [*Lupinus chamissonis-Ericameria ericoides*] (Holton & Johnson 1979)
- 32.170.00 Broom [includes stands of *Cytisus* spp., *Spartium* spp., *Genista* spp.]
- 33.000.00 Sonoran and Mojavean Desert Scrub
- 33.010.00 Creosote Bush [*Larrea tridentata*]
- 33.010.01 Creosote Bush with disturbance [*Larrea tridentata*] (Minnich *et al.* 1993)
- ★33.010.02 Sonoran Dune Scrub (Spolsky 1979)
- 33.010.03 High Diversity Creosote Scrub (Spolsky 1979)

- 33.010.04 Creosote Bush - Brittlebush [*Larrea tridentata-Encelia farinosa*] (Spolsky 1979)
- ★33.010.05 Saltbush - Creosote Bush [*Larrea tridentata-Atriplex polycarpa*] (Spolsky 1979)
- 33.020.00 Black bush [*Coleogyne ramosissima*]{34300}
- 33.030.00 Brittlebush [*Encelia farinosa*]
- ★33.031.00 Acton Encelia [*Encelia actoni*]
- 33.032.00 Desert Sunflower [*Viguieria parishii*]
- 33.040.00 Catclaw Acacia [*Acacia greggii*]
- ★33.050.00 Teddy-bear Cholla [*Opuntia bigelovii*]
- 33.060.00 White Bursage [*Ambrosia dumosa*]
- ★33.061.00 Fagonia [*Fagonia laevis*]
- 33.070.00 Mojave Yucca [*Yucca schidigera*]
- ★33.075.00 Desert Agave [*Agave deserti*]
- ★33.080.00 Nolina [*Nolina* spp.]
- ★33.090.00 Ocotillo [*Fouquieria splendens*]
- ★33.100.00 All-thorn Unique Stands [*Koeberlinia spinosa*]{75300}
- ★33.110.00 Crucifixion-thorn Unique Stands [*Castela emoryi*]{75200}
- ★33.120.00 Elephant Tree Unique Stands [*Bursera microphylla*]{75100}
- 33.130.00 Brittlebush - White Bursage [*Encelia farinosa-Ambrosia dumosa*]
- 33.140.00 Creosote Bush - White Bursage [*Larrea tridentata-Ambrosia dumosa*]
- 33.140.01 Rocky sides of hills and mountains (McHargue 1973)
- 33.140.02 Rocky bajadas (McHargue 1973)
- 33.140.03 Gravelly bajadas (McHargue 1973)
- 33.140.04 Sonoran Creosote Bush Scrub (Spolsky 1979)

33.140.05 Uniform Creosote Scrub (Spolsky 1979)

★33.150.00 Foothill Palo Verde - Saguaro [*Cercidium microphyllum-Carnegia gigantea*]{75400}

33.160.00 Bladderpod - California Ephedra - Narrowleaf Goldenbush [*Isomeris arborea-Ephedra californica-Ericameria linearifolia*]{23300}

33.161.00 Coast Range Bladderpod - California Ephedra - Narrowleaf Goldenbush [*Isomeris arborea-Ephedra californica-Ericameria linearifolia*]

★33.160.01 Monvero Dunes Association

★33.170.00 Joshua Tree [*Yucca brevifolia*]

37.170.01 Joshua Tree Woodland{73000}

33.180.00 Hop-sage [*Grayia spinosa*]

33.190.00 Desert Lavender [*Hyptis emoryi*]

33.200.00 Cheesebush

35.000.00 Great Basin Scrub

35.100.00 Sagebrush [*Artemisia* spp.]

35.110.00 Big Sagebrush [*Artemisia tridentata*]{35210}

35.110.01 Big Sagebrush - Rubber Rabbitbrush [*Artemisia tridentata-Chrysothamnus nauseosus*] (Ferren & Davis 1991)

★35.110.02 Big Sagebrush [*Artemisia tridentata*] (Gordon & White 1994)

35.110.03 Desert Slope Sagebrush (Spolsky 1979)

35.110.04 Big Sagebrush - Desert Snowberry [*Artemisia tridentata-Symporicarpos longiflorus*] (Taylor 1980)

35.120.00 Low Sagebrush (*Artemisia arbuscula*)

35.120.01 Low Sagebrush / Mono Clover (*Artemisia arbuscula-Trifolium monoense*) (Major & Taylor 1977)

35.120.02 Low Sagebrush / Stemless Haplopappus (*Artemisia arbuscula-Stenotus acaulis*) (Major & Taylor 1977)

★35.120.03 Low Sagebrush / Idaho Fescue (*Artemisia arbuscula-Festuca idahoensis*) (Stillman 1980)

35.130.00 Black Sagebrush [*Artemisia nova*]{47000}

★35.130.01 Southern Montane Black Sagebrush Pebble Plains

- 35.140.00 Rothrock Sagebrush [*Artemisia rothrockii*]  
 ★35.140.01 Rothrock Sagebrush / Heretic Penstemon [*Artemisia rothrockii/Penstemon heterodoxus*] (Benedict 1983)  
 ★35.140.02 Rothrock Sagebrush / Pennyroyal [*Artemisia rothrockii/Monardella odoratissima*] (Taylor 1984)
- 35.200.00 Bitterbrush [*Purshia tridentata*]
- 35.300.00 Rabbitbrush [*Chrysothamnus* spp.]
- 35.310.00 Rubber Rabbitbrush [*Chrysothamnus nauseosus*]
- ★35.320.00 Parry Rabbitbrush [*Chrysothamnus parryi*]{35410}
- 36.000.00 Chenopod Scrub
- 36.100.00 Iodine Bush Scrub [*Allenrolfea occidentalis*]  
 ★36.110.00 Great Valley Iodine Bush Scrub  
 ★36.120.00 Desert Iodine Bush Scrub  
 36.120.01 Saltgrass - Iodine Bush [*Distichlis spicata- Allenrolfea occidentalis*] (Bradley 1970)  
 36.120.02 Bush Seepweed - Iodine Bush [*Suaeda moquinii-Allenrolfea occidentalis*] (Bradley 1970)  
 ★36.120.03 Alkali Sacaton - Iodine Bush [*Sporobolus airoides-Allenrolfea occidentalis*] (Odion et al 1992)  
 36.120.04 Iodine Bush [*Allenrolfea occidentalis*] (McHargue 1973)
- 36.200.00 Bush Seepweed Scrub [*Suaeda moquinii*]  
 ★36.200.01 Great Valley Bush Seepweed Scrub  
 ★36.200.02 Desert Bush Seepweed Scrub  
 36.200.03 Bush Seepweed - Iodine Bush [*Suaeda moquinii-Allenrolfea occidentalis*] (Bradley 1970)
- 36.300.00 Saltbush [*Atriplex* spp.]
- 36.310.00 Fourwing Saltbush [*Atriplex canescens*]
- 36.320.00 Shadscale [*Atriplex confertifolia*]{36140}  
 36.320.01 Greasewood - Shadscale [*Sarcobatus vermiculatus-Atriplex confertifolia*] (Ferren & Davis 1991)  
 36.320.02 Shadscale - Nevada Ephedra [*Atriplex confertifolia-Ephedra nevadensis*] (Ferren & Davis 1991)

★36.330.00 Desert-holly [*Atriplex hymenelytra*]

36.340.00 Allscale [*Atriplex polycarpa*]{23200}

★36.341.00 Great Valley Allscale Scrub

★36.342.00 Sierra-Tehachapi Saltbush Scrub{36310}

36.350.00 Spinescale [*Atriplex spinifera*]

★36.351.00 Great Valley Spinescale Scrub

36.360.00 Mixed Saltbush [*Atriplex* spp.]

36.360.01 Mixed Saltbush [*Atriplex* spp.] (McHargue 1973)

36.360.02 Allscale - Shadscale [*Atriplex polycarpa*] (Yoder *et al.* 1983)

★36.400.00 Greasewood [*Sarcobatus vermiculatus*]

★36.500.00 Winter Fat [*Krascheninnikovia lanata*]

37.000.00 Chaparral

37.000.01 Northern Mixed Chaparral{37110}

★37.000.02 Gabbroic Northern Mixed Chaparral{37111}

★37.000.03 Mafic Southern Mixed Chaparral{37122}

37.000.04 Semi-Desert Chaparral{37400}

37.000.05 Mixed Montane Chaparral{37510}

★37.000.06 Mixed Serpentine Chaparral{37610}

37.000.07 Northern North Slope Chaparral{37E10}

37.000.08 Coastal Sage Chaparral Scrub{37G00}

37.100.00 Chaparral with Chamise

37.101.00 Chamise [*Adenostoma fasciculatum*]

37.101.01 Chamise - (Bigberry Manzanita)[*Adenostoma fasciculatum-(Arctostaphylos glauca)*] (Gordon & White 1994)

37.101.02 Chamise - (Black Sage) [*Adenostoma fasciculatum-(Salvia mellifera)*] (Gordon & White 1994)

37.101.03 Chamise - (California Buckwheat - White Sage) [*Adenostoma fasciculatum-(Salvia apiana)*] (Gordon & White 1994)

37.101.04 Chamise - (Chaparral Yucca) [*Adenostoma fasciculatum-(Yucca whipplei)*] (Gordon & White 1994)

37.101.05 Chamise - (Cupleaf Ceanothus) [*Adenostoma fasciculatum-(Ceanothus greggii)*] (Gordon & White 1994)

- ★37.101.06 Chamise - (Cupleaf Ceanothus - Mafic Soils) [*Adenostoma fasciculatum*-(*Ceanothus greggii*)](Gordon & White 1994)
- 37.101.07 Chamise - (Eastwood Manzanita) [*Adenostoma fasciculatum*-*(Arctostaphylos glandulosa)*] Gordon & White 1994)
- 37.101.08 Chamise - (Hoaryleaf Ceanothus) [*Adenostoma fasciculatum*-(*Ceanothus crassifolius*)] (Gordon & White 1994)
- 37.101.09 Chamise - (Scrub Oak) [*Adenostoma fasciculatum*-(*Quercus berberidifolia*)] (Gordon & White 1994)
- 37.101.10 Chamise - (Wedgeleaf Ceanothus) [*Adenostoma fasciculatum*-(*Ceanothus cuneatus*)] (Gordon & White 1994)
- 37.101.11 Chamise - (Woollyleaf Ceanothus) [*Adenostoma fasciculatum*-(*Ceanothus tomentosus*)] (Gordon & White 1994)
  
- 37.102.00 Chamise - Black Sage [*Adenostoma fasciculatum-Salvia mellifera*)]
- ★37.102.01 Southern Maritime Chaparral {37C30}
- 37.102.02 Chamise - Black Sage / Herb (Hogan & Sawyer 1996)
- ★37.102.03 Chamise - Black Sage - Mixed Shrub (Hogan & Sawyer 1996)
  
- 37.103.00 Chamise - White Sage [*Adenostoma fasciculatum-Salvia apiana*)]
- 37.103.01 Chamise - White Sage [*Adenostoma fasciculatum-Salvia apiana*)] (Gordon & White 1994)
  
- 37.104.00 Chamise - Bigberry Manzanita [*Adenostoma fasciculatum- Arctostaphylos glauca*)]
- 37.104.01 Chamise - Bigberry Manzanita [*Adenostoma fasciculatum- Arctostaphylos glauca*] (Gordon & White 1994)
- 37.104.02 Chamise - Bigberry Manzanita - (Chaparral Whitethorn) [*Adenostoma fasciculatum-Arctostaphylos glauca-(Ceanothus leucodermis)*] (Gordon & White 1994)
- 37.104.03 Chamise - Bigberry Manzanita - (Chaparral-Yucca) [*Adenostoma fasciculatum-Arctostaphylos glauca-(Yucca whipplei)*] (Gordon & White 1994)
- 37.104.04 Chamise - Bigberry Manzanita - (Cupleaf Ceanothus) [*Adenostoma fasciculatum-Arctostaphylos glauca-(Ceanothus greggii)*] (Gordon & White 1994)
- 37.104.05 Chamise - Bigberry Manzanita - (Hoaryleaf Ceanothus) [*Adenostoma fasciculatum-Arctostaphylos glauca-(Ceanothus crassifolius)*] (Gordon & White 1994)
- 37.104.06 Chamise - Bigberry Manzanita - (Scrub Oak) [*Adenostoma fasciculatum-Arctostaphylos glauca-(Quercus berberidifolia)*] (Gordon & White 1994)
- 37.104.07 Chamise - Bigberry Manzanita - (Wedgeleaf Ceanothus) [*Adenostoma fasciculatum-Arctostaphylos glauca-(Ceanothus cuneatus)*] (Gordon & White 1994)

& White 1994)

- 37.105.00 Chamise - Cupleaf Ceanothus [*Adenostoma fasciculatum-Ceanothus greggii*]  
37.105.01 Chamise - Cupleaf Ceanothus [*Adenostoma fasciculatum-Ceanothus greggii*] (Gordon & White 1994)  
★37.105.02 Chamise / Mafic Soils [*Adenostoma fasciculatum*] (Gordon & White 1994)
- 37.106.00 Chamise - Eastwood Manzanita [*Adenostoma fasciculatum- Arctostaphylos glandulosa*]  
37.106.01 Chamise - Eastwood Manzanita - (Birchleaf Mountain-mahogany) [*Adenostoma fasciculatum-Arctostaphylos glandulosa-(Cercocarpus betuloides)*] (Gordon & White 1994)  
37.106.02 Chamise - Eastwood Manzanita - (ChaparralWhitethorn) [*Adenostoma fasciculatum-Arctostaphylos glandulosa-(Ceanothus leucodermis)*] (Gordon & White 1994)  
37.106.03 Chamise - Eastwood Manzanita - (Cupleaf Ceanothus) [*Adenostoma fasciculatum-Arctostaphylos glandulosa-(Ceanothus greggii)*] (Gordon & White 1994)  
37.106.04 Chamise - Eastwood Manzanita - (Hoaryleaf Ceanothus) [*Adenostoma fasciculatum-Arctostaphylos glandulosa-(Ceanothus crassifolius)*] (Gordon & White 1994)  
37.106.05 Chamise - Eastwood Manzanita / Mafic Soils [*Adenostoma fasciculatum-Arctostaphylos glandulosa*] (Gordon & White 1994)  
37.106.06 Chamise - Eastwood Manzanita - (Birchleaf Mountain-mahogany) [*Adenostoma fasciculatum-Arctostaphylos glandulosa-(Cercocarpus betuloides)*] (Gordon & White 1994)  
37.106.07 Chamise - Eastwood Manzanita - (Wedgeleaf Ceanothus) [*Adenostoma fasciculatum-Arctostaphylos glandulosa-(Ceanothus cuneatus)*] (Gordon & White 1994)  
37.106.08 Chamise - Eastwood Manzanita [*Adenostoma fasciculatum-Arctostaphylos glandulosa*] (Parker 1990)
- 37.107.00 Chamise - Hoaryleaf Ceanothus [*Adenostoma fasciculatum-Ceanothus crassifolius*]  
37.107.01 Chamise - Hoaryleaf Ceanothus [*Adenostoma fasciculatum-Ceanothus crassifolius*] (Gordon & White 1994)  
37.107.02 Chamise - Hoaryleaf Ceanothus - Black Sage [*Adenostoma fasciculatum-Ceanothus crassifolius-Salvia mellifera*] (Gordon & White 1994)
- 37.108.00 Chamise - Wedgeleaf Ceanothus [*Adenostoma fasciculatum-Ceanothus cuneatus*]  
37.108.01 Chamise - Wedgeleaf Ceanothus [*Adenostoma fasciculatum-*

*Ceanothus cuneatus]* (Gordon & White 1994)

- ★37.109.00 Chamise - Mission-manzanita - Woollyleaf Ceanothus [*Adenostoma fasciculatum-Xylococcus bicolor-Ceanothus tomentosus*]  
37.109.01 Chamise - Mission-manzanita [*Adenostoma fasciculatum-Xylococcus bicolor*] (Gordon & White 1994)
- 37.109.02 Chamise - Mission-manzanita - Woollyleaf Ceanothus [*Adenostoma fasciculatum-Xylococcus bicolor-Ceanothus tomentosus*] (Gordon & White 1994)
- ★37.109.03 Chamise - Mission-manzanita - Woollyleaf Ceanothus (mafic soils) [*Adenostoma fasciculatum-Xylococcus bicolor-Ceanothus tomentosus*] (Gordon & White 1994)
- ★37.109.04 Chamise - Woollyleaf Ceanothus [*Adenostoma fasciculatum-Ceanothus tomentosus*] (Gordon & White 1994)
- 37.200.00 Chaparral with Ceanothus
- 37.201.00 Bigpod Ceanothus [*Ceanothus megacarpus*]{37840}  
37.201.01 Bigpod Ceanothus [*Ceanothus megacarpus*] (Borchert *et al.* 1993b)  
37.201.02 Bigpod Ceanothus - Chamise / Black Sage [*Ceanothus megacarpus-Adenostoma fasciculatum/Salvia mellifera*] (Borchert *et al.* 1993b)
- 37.202.00 Bigpod Ceanothus - Birchleaf Mountain-mahogany [*Ceanothus megacarpus-Cercocarpus betuloides*]
- 37.203.00 Bigpod Ceanothus - Hollyleaf Redberry [*Ceanothus megacarpus-Rhamnus ilicifolia*]
- 37.204.00 Blue Blossom [*Ceanothus thyrsiflorus*]{37820}
- 37.205.00 Chaparral Whitethorn [*Ceanothus leucodermis*]{37532}  
37.205.01 Chaparral Whitethorn [*Ceanothus leucodermis*] (Gordon & White 1994)
- 37.206.00 Deerbrush [*Ceanothus intergerrimus*]{37531}  
37.206.01 Deerbrush [*Ceanothus intergerrimus*] (Gordon & White 1994)  
37.206.02 Deerbrush - Canyon Live Oak - Blue Wildrye [*Ceanothus intergerrimus-Quercus chryssolepis-Elymus glaucus*] (Stuart *et al.* 1993)  
37.206.03 Tanoak - Madrone - Deerbrush [*Lithocarpus densiflora-Arbutus menziesii-Ceanothus intergerrimus*] (Stuart *et al.* 1993)

- 37.207.00 Hairyleaf Ceanothus [*Ceanothus oliganthus*]  
     37.207.01 Hairyleaf Ceanothus [*Ceanothus oliganthus*] (Gordon & White 1994)
- 37.208.00 Hoaryleaf Ceanothus [*Ceanothus crassifolius*]{37830}  
     37.208.01 Hoaryleaf Ceanothus [*Ceanothus crassifolius*] (Gordon & White 1994)
- 37.209.00 Mountain Whitethorn [*Ceanothus cordulatus*]
- 37.210.00 Tobacco Brush [*Ceanothus velutinus*]{37533}
- 37.211.00 Wedgeleaf Ceanothus [*Ceanothus cuneatus*]{37810}  
     37.211.01 Wedgeleaf Ceanothus [*Ceanothus cuneatus*] Stuart *et al.* 1992  
     37.211.02 Wedgeleaf Ceanothus - Incense-cedar [*Ceanothus cuneatus-Calocedrus decurrens*] (Stuart *et al.* 1992)  
     37.211.03 Wedgeleaf Ceanothus / Squirretail [*Ceanothus cuneatus/Elymus elymoides*] (Taylor & Teare 1979b)
- 37.212.00 Cupleaf Ceanothus - Flannelbush - Oak [*Ceanothus greggii-Fremontodendron californicum-Quercus* sp.]{37J00}  
     37.212.01 Cupleaf Ceanothus [*Ceanothus greggii*] (Gordon & White 1994)  
     37.212.02 Birchleaf Mountain-mahogany - Chamise [*Cercocarpus betuloides-Adenostoma fasciculatum*] (Gordon & White 1994)  
     37.212.03 Birchleaf Mountain-mahogany- Flannelbush [*Cercocarpus betuloides-Fremontodendron californicum*] (Gordon & White 1994)  
     ★37.212.04 Tucker Oak or Muller Oak [*Quercus john-tuckeri*] (Gordon & White 1994)
- 37.300.00 Chaparral with Manzanita{37B00}
- 37.301.00 Bigberry Manzanita [*Arctostaphylos glauca*]  
     37.301.01 Bigberry Manzanita [*Arctostaphylos glauca*] (Gordon & White 1994)
- 37.302.00 Eastwood Manzanita [*Arctostaphylos glandulosa*]  
     37.302.01 Eastwood Manzanita [*Arctostaphylos glandulosa*] (Gordon & White 1994)
- 37.303.00 Greenleaf Manzanita [*Arctostaphylos patula*]
- ★37.304.00 Ione Manzanita [*Arctostaphylos myrtifolia*]
- 37.305.00 Whiteleaf Manzanita [*Arctostaphylos viscida*]

★37.306.00 Woollyleaf Manzanita [*Arctostaphylos tomentosa* spp. *tomentosa*]

★37.306.01 Northern Maritime Chaparral{37C10}

★37.306.02 Central Maritime Chaparral{37C20}

★37.307.00 Ione Chaparral{37D00}

37.400.00 Chaparral with Oak

37.401.00 Interior Live Oak Shrub [*Quercus wislizenii*]{37A00}

37.402.00 Interior Live Oak - Canyon Live Oak [*Quercus wislizenii-Quercus chrysolepis*]

37.402.01 Interior Live Oak - Canyon Live Oak [*Quercus wislizenii-Quercus chrysolepis*](Gordon & White 1994)

37.403.00 Interior Live Oak - Chaparral Whitethorn [*Quercus wislizenii-Ceanothus leucodermis*]

37.403.01 Shrub Interior Live Oak - Chaparral Whitethorn [*Quercus wislizenii-Ceanothus leucodermis*] (Gordon & White 1994)

37.403.02 Shrub Interior Live Oak - Chaparral Whitethorn - (Eastwood Manzanita) [*Quercus wislizenii-Ceanothus leucodermis-Arctostaphylos glandulosa*] (Gordon & White 1994)

37.404.00 Interior Live Oak - Scrub Oak [*Quercus wislizenii-Quercus berberidifolia*]

37.405.00 Leather Oak [*Quercus durata*]{37620}

37.406.00 Mixed Scrub Oak

37.406.01 Scrub Oak - Bigberry Manzanita [*Quercus berberidifolia-Arctostaphylos glauca*] (Gordon & White 1994)

37.406.02 Scrub Oak - Deerbrush [*Quercus berberidifolia-Ceanothus intergerrimus*] (Gordon & White 1994)

★37.406.03 Scrub Oak - Hairyleaf Ceanothus [*Quercus berberidifolia-Ceanothus oliganthus*] (Gordon & White 1994)

★37.406.04 Scrub Oak - Toyon [*Quercus berberidifolia-Heteromeles arbutifolia*] (Gordon & White 1994)

37.406.05 Scrub Oak - Wedgeleaf Ceanothus [*Quercus berberidifolia-Ceanothus cuneatus*] (Gordon & White 1994)

37.406.06 Scrub Oak - Woollyleaf Ceanothus [*Quercus berberidifolia-Ceanothus tomentosus*] (Gordon & White 1994)

37.407.00 Scrub Oak [*Quercus berberidifolia*]{37900}

37.407.01 Scrub Oak / California Buckeye [*Quercus berberidifolia/Aesculus californica*] (Newton 1987)

- 37.407.02 Scrub Oak [*Quercus berberidifolia*] (Gordon & White 1994)
- 37.407.03 Scrub Oak - (Chamise - Eastwood Manzanita) [*Quercus berberidifolia*-*(Adenostoma fasciculatum*-*Arctostaphylos glandulosa*)] (Gordon & White 1994)
- 37.407.04 Scrub Oak - (Toyon) [*Quercus berberidifolia*- (*Heteromeles arbutifolia*)] (Gordon & White 1994)
- 37.407.05 Scrub Oak - (Chaparral Whitethorn) [*Quercus berberidifolia*-*(Ceanothus leucodermis)*] (Gordon & White 1994)
- 37.407.06 Scrub Oak - (Birchleaf Mountain-mahogany) [*Quercus berberidifolia*-*(Cercocarpus betuloides)*] (Gordon & White 1994)
- 37.408.00 Scrub Oak - Birchleaf Mountain-mahogany [*Quercus berberidifolia*-*Cercocarpus betuloides*]
- 37.408.01 Scrub Oak - Birchleaf Mountain-mahogany [*Quercus berberidifolia*-*Cercocarpus betuloides*] (Gordon & White 1994)
- 37.408.02 Scrub Oak - Birchleaf Mountain-mahogany -(Cupleaf Ceanothus) [*Quercus berberidifolia*-*Cercocarpus betuloides*-*(Ceanothus greggii)*] (Gordon & White 1994)
- ★37.408.03 Foothill Ash - Birchleaf Mountain-mahogany - Scrub Oak [*Fraxinus dipetala*-*Cercocarpus betuloides*-*Quercus berberidifolia*] (Gordon & White 1994)
- ★37.408.04 Scrub Oak - Birchleaf Mountain-mahogany - (Palmer Ceanothus) [*Quercus berberidifolia*-*Cercocarpus betuloides*-*(Ceanothus palmeri)*] (Gordon & White 1994)
- 37.409.00 Scrub Oak - Chamise [*Quercus berberidifolia*-*Adenostoma fasciculatum*]
- 37.409.01 Scrub Oak - Chamise - (Hoaryleaf Ceanothus) [*Quercus berberidifolia*-*Adenostoma fasciculatum*-*(Ceanothus crassifolius)*] (Gordon & White 1994)
- 37.409.02 Scrub Oak - Chamise - (Cupleaf Ceanothus) [*Quercus berberidifolia*-*Adenostoma fasciculatum*-*(Ceanothus greggii)*] (Gordon & White 1994)
- 37.410.00 Scrub Oak - Chaparral Whitethorn [*Quercus berberidifolia*-*Ceanothus leucodermis*]
- 37.410.01 Scrub Oak - Chaparral Whitethorn [*Quercus berberidifolia*-*Ceanothus leucodermis*] (Gordon & White 1994)
- 37.411.00 Brewer Oak [*Quercus garryana* var. *breweri*] {37541}
- ★37.411.01 Oregon White Oak - Brewer Oak / California Fescue [*Quercus garryana* var. *garryana*-*Quercus garryana* var. *breweri*/*Festuca californica*] (Jimerson 1993)
- ★37.411.02 White Fir / Huckleberry Oak [*Abies concolor*/*Quercus vaccinifolia*]

(Sawyer 1981b)

★37.412.00 Sadler Oak [*Quercus sadleriana*]

37.413.00 Canyon Live Oak Shrub [*Quercus chrysolepis*]

37.413.01 Canyon Live Oak Shrub [*Quercus chrysolepis*] (Gordon & White 1994)

37.413.02 Canyon Live Oak - (Deerbrush - Chaparral Whitethorn) Shrub [*Quercus chrysolepis-(Ceanothus integerrimus-Ceanothus leucodermis)*] (Gordon & White 1994)

37.414.00 Huckleberry Oak [*Quercus vaccinifolia*]{37542}

37.500.00 Chaparral with Red shank

★37.501.00 Red Shank [*Adenostoma sparsifolium*]

★37.501.01 Red Shank [*Adenostoma sparsifolium*] (Gordon & White 1994)

37.502.00 Red Shank - Birchleaf Mountain-mahogany [*Adenostoma sparsifolium-Cercocarpus betuloides*]

★37.502.01 Red Shank - Birchleaf Mountain-mahogany [*Adenostoma sparsifolium-Cercocarpus betuloides*] (Gordon & White 1994)

★37.503.00 Red Shank - Chamise [*Adenostoma sparsifolium-Adenostoma fasciculatum*]

★37.503.01 Red Shank - Chamise - (Birchleaf Mountain-mahogany) [*Adenostoma sparsifolium-Adenostoma fasciculatum-(Cercocarpus betuloides)*] (Gordon & White 1994)

★37.503.02 Red Shank - Chamise - (Cupleaf Ceanothus) [*Adenostoma sparsifolium-Adenostoma fasciculatum-(Ceanothus greggii)*] (Gordon & White 1994)

★37.503.03 Red Shank - Chamise - (Pointleaf Manzanita) [*Adenostoma sparsifolium-Adenostoma fasciculatum-(Arctostaphylos pungens)*] (Gordon & White 1994)

★37.504.00 Red Shank Chaparral{37300}

37.600.00 Birchleaf Mountain-mahogany - California buckwheat [*Cercocarpus betuloides-Eriogonum fasciculatum*]

37.600.01 Birchleaf Mountain-mahogany - California Buckwheat [*Cercocarpus betuloides-Eriogonum fasciculatum*] (Gordon & White 1994)

37.700.00 Bush Chinquapin [*Chrysolepis sempervirens*]{37540}

37.800.00 Sumac [*Rhus* sp., *Malosma laurina*]  
★37.801.00 Sugarbush [*Rhus ovata*]

38.000.00 Subalpine Upland Shrub

38.100.00 Sierra Subalpine Upland Shrub  
38.100.01 Shrub Cinquefoil [*Potentilla fruticosa*] (Burke 1982)  
38.100.02 Compact Phlox - Stemless Haplopappus - Alpine Ipomopsis [*Phlox pulvinata-Stenotus acaulis-Ipomopsis congesta*] (Major & Taylor 1977)  
38.100.03 Granite-gilia / King Ricegrass [*Leptodactylon pungens/Oryzopsis kingii*] (Major & Taylor 1977)

38.100.04 Granite-gilia / Alpine Goldenbush [*Leptodactylon pungens/Ericameria discoidea*] (Major & Taylor 1977)  
38.100.05 Podistera - Pygmy Fleabane [*Podistera-Eriogonum pygmaeus*] (Major & Taylor 1977)  
38.100.06 Wax Currant / Purple Reedgrass [*Ribes cereum/Calamagrostis purpurascens*] (Major & Taylor 1977)  
38.100.07 Red Elderberry - Congdon Sedge [*Sambucus racemosa-Carex congonii*] (Taylor 1984)  
38.100.08 Purple reedgrass - Granite-gilia [*Calamagrostis purpurascens-Leptodactylon pungens*] (Taylor 1984)  
38.100.09 Shrub Cinquefoil - One-seeded Oatgrass [*Potentilla fruticosa-Danthonia unispicata*] (Taylor 1984)

39.000.00 *Holodiscus*

39.100.00 *Holodiscus*  
39.100.01 Rock Spiraea / Suksdorf Monkeyflower [*Holodiscus microphyllus-Mimulus suksdorffii*] (Burke 1982)  
39.100.02 Western Needlegrass - Nude Buckwheat [*Stipa occidentalis-Eriogonum nudum*] (Burke 1982)  
39.100.03 Ocean Spray / Greenleaf Manzanita [*Holodiscus discolor-Arctostaphylos patula*] (Sawyer & Thornburgh 1997)  
39.100.04 Ocean Spray / Wedgeleaf Keckiella [*Holodiscus discolor/KeckIELLA corymbosa*] (Taylor & Teare 1979a)

40.000.00 HERB COMMUNITIES

41.000.00 Native Grassland

★41.010.00 Alkali Sacaton [*Sporobolus airoides*] {42120}

★41.020.00 Ashy Ryegrass [*Leymus cinereus*]

★41.030.00 Big Galleta [*Pleuraphis rigida*]

★41.040.00 Bluebunch Wheatgrass [*Elymus spicatus*]

★41.050.00 California Oatgrass [*Danthonia californica*]

★41.050.01 California Oatgrass - Tall-oatgrass [*Danthonia californica-Arrhenatherum elatius*] (Grenier 1989)

★41.050.02 Squirretail - California Oatgrass [*Elymus elymoides-Danthonia californica*] (Stuart *et al.* 1992)

★41.050.03 California Oatgrass - Pull-up Muhly [*Danthonia californica-Muhlenbergia filiformis*] (Helms & Ratliff 1987)

41.060.00 Common Reed [*Phragmites australis*]

41.061.00 Alkali Common Reed [*Phragmites australis*]

★41.070.00 Cordgrass [*Spartina* spp.]

★41.070.01 California Cordgrass [*Spartina foliosa*] (Atwater *et al.* 1979)

★41.070.02 Dense-flowered Cordgrass [*Spartina densiflora*] (Eicher 1987)

★41.070.03 Alkali Cordgrass - Alkali Sacaton [*Spartina gracilis-Sporobolus airoides*] (Oidon *et al.* 1992)

★41.080.00 Creeping Ryegrass [*Leymus triticoides*] {42140}

★41.090.00 Desert Needlegrass [*Stipa speciosum*]

★41.110.00 Foothill Needlegrass [*Stipa lepida*]

★41.120.00 Indian Ricegrass [*Oryzopsis hymenoides*]

★41.130.00 Needle-and-thread [*Stipa comata*]

★41.140.00 Nodding Needlegrass [*Stipa cernua*]

★41.150.00 Purple Needlegrass [*Stipa pulchra*]

★41.150.01 Italian Ryegrass - Purple Needlegrass [*Lolium multiflorum-Stipa pulchra*] (Fiedler & Leidy 1987)

- ★41.150.02 Wild Oats - Purple Needlegrass [*Avena fatua-Stipa pulchra*] (Parker 1990)
- ★41.150.03 Purple Needlegrass / Purple Sanicle [*Stipa pulchra/Sanicula bipinnatifida*] (Stuart *et al.* 1993)

★41.160.00 Lemmon's Needlegrass

★41.170.00 Valley Needlegrass Grassland [*Stipa* spp.] {42110}

★41.180.00 One-sided Bluegrass [*Poa secunda*] {42150}

★41.181.00 One-sided Bluegrass Pebble Plains

★41.190.00 Pacific Reedgrass [*Calamagrostis nutkaensis*]

41.200.00 Saltgrass [*Distichlis spicata*]

- ★41.200.01 Saltgrass - Iodine Bush [*Distichlis spicata-Allenrolfea occidentalis*] (Bradley 1970)
- ★41.200.02 Saltgrass - Cooper Rush [*Distichlis spicata-Juncus cooperi*] (Bradley 1970)
- ★41.200.03 Greasewood - Saltgrass [*Sarcobatus vermiculatus-Distichlis spicata*] (Ferren & Davis 1991)
- ★41.200.04 Saltgrass - Alkali Rabbitbrush [*Distichlis spicata-Chrysothamnus albidus*] (Odion *et al.* 1992)
- 41.200.05 Baltic Rush - Saltgrass [*Juncus balticus-Distichlis spicata*] (Odion *et al.* 1992)
- ★41.200.06 Jaumea - Saltgrass [*Jaumea carnosa-Distichlis spicata*] (Peinado *et al.* 1994)
- ★41.201.07 Alkali Saltgrass

41.210.00 Shorthair Reedgrass [*Calamagrostis breweri*]

- 41.210.01 Shorthair Reedgrass - Alpine Aster [*Calamagrostis breweri-Aster alpinus*] (Benedict 1983)
- 41.210.02 Shorthair Reedgrass - Spike Trisetum [*Calamagrostis breweri-Triesetum spicatum*] (Benedict 1983)
- 41.210.03 Shorthair Reedgrass - Bilberry [*Calamagrostis breweri-Vaccinium caespitosum*] (Major & Taylor 1977)
- 41.210.04 Drummond Rush - Shorthair Reedgrass [*Juncus drummondii-Calamagrostis breweri*] (Taylor 1984)
- 41.210.05 Shorthair Reedgrass - Mountain Laurel [*Calamagrostis breweri-Kalmia polifolia*] (Taylor 1984)

- 41.220.00 Tufted Hairgrass [*Deschampsia caespitosa*]  
 41.220.01 Tufted hairgrass - Nebraska Sedge [*Deschampsia caespitosa-Carex nebrascensis*] (Allen-Diaz 1991)  
 41.220.02 Tufted Hairgrass - Brewer Bitter-cress [*Deschampsia caespitosa-Cardamine breweri*] (Benedict 1983)  
 41.220.03 Tufted Hairgrass - Coville Ragwort [*Deschampsia caespitosa-Senecio scorzonella*] (Benedict 1983)  
 41.220.04 Tufted Hairgrass - Coville Ragwort - Yarrow [*Deschampsia caespitosa-Senecio scorzonella*] (Benedict 1983)  
 ★41.220.05 Vernal Grass - Tufted Hairgrass [*Anthoxanthum odoratum-Deschampsia caespitosa*] (Heady *et al.* 1977)  
 41.220.06 Mt. Dana Sedge - Tufted Hairgrass [*Carex subnigricans-Deschampsia caespitosa*] (Major & Taylor 1977)  
 41.220.07 Tufted Hairgrass - Northern Goldenrod [*Deschampsia caespitosa-Solidago multiradiata*] (Taylor 1984)

★41.230.00 Squirreltail

- 41.240.00 Green Fescue [*Festuca viridula*]

★41.250.00 Idaho Fescue [*Festuca idahoensis*]

- ★41.260.00 Native Dunegrass [*Leymus mollis*]{21210}  
 41.260.01 Native dunegrass - Hottentot-fig [*Leymus mollis-Carpobrotus edulis*] (Bluestone 1981)  
 41.260.02 Native Dunegrass - European Beachgrass [*Leymus mollis-Ammophila arenaria*] (LaBanca 1993)  
 ★41.260.03 Native Dunegrass - Sea Rocket [*Leymus mollis-Cakile sp.*] (Parker 1974)

42.000.00 Non-native Grassland

- 42.010.00 European Beachgrass [*Ammophila arenaria*]  
 42.010.01 European Beachgrass - Australian fireweed [*Ammophila arenaria-Erechtites minima*] (Parker 1974)  
 42.010.02 Beachgrass [*Ammophila* sp.] (Duebendorfer 1989)

42.020.00 Cheatgrass [*Bromus tectorum*]

- 42.020.01 Cheatgrass [*Bromus tectorum*] (Stuart *et al.* 1993)  
 42.020.02 Cheatgrass - Ripgut [*Bromus tectorum-Bromus diandrus*] (White 1994a)

42.030.00 Crested Wheatgrass [*Agropyron desertorum*]

- 42.040.00 California Annual Grassland{42200}
- 42.040.01 Slender Oat - Soft Brome [*Avena barbata-Bromus hordeaceus*] (Kopecko & Lathrop 1975)
  - 42.040.02 Soft Brome - Rattail Fescue [*Bromus hordeaceus-Vulpia hirsuta*] (Kopecko & Lathrop 1975)
  - 42.040.03 European Hairgrass [*Aira caryophyllea*] (Schlising & Sanders 1982)
  - 42.040.04 Soft Brome - Storkbill [*Bromus hordeaceus-Erodium botrys* (Schlising & Sanders 1982)
- 42.050.00 Introduced Perennial Grassland
- 42.050.01 Hairy Oatgrass - Vernal Grass [*Danthonia pilosa-Anthoxanthum odoratum*] (Hektner & Foin 1977)
  - 42.050.02 Foothill Sedge - Tall-oatgrass [*Carex tumulicola-Arrhenatherum elatius*] (Grenier 1989)
  - 42.050.03 Vernal Grass - Tufted Hairgrass [*Anthoxanthum odoratum-Deschampsia caespitosa*] (Heady *et al.* 1977b)
  - 42.050.04 Dogtail - Hareleaf [*Cynosurus cristatus-Lagophylla glandulosa*] (Jimerson 1993)
  - 42.050.05 Dogtail - Soft Chess - Dandelion [*Cynosurus cristatus-Bromus hordeaceus-Taraxacum officinale*] (Jimerson 1993)
  - 42.050.06 Tall-oatgrass - Soft Chess [*Arrhenatherum elatius-Bromus hordeaceus*] (Jimerson 1993)
  - 42.050.07 Creeping Bent - Tall-oatgrass [*Agrostis stolonifera-Arrhenatherum elatius*] (Saenz & Sawyer 1986)
- 42.060.00 Kentucky Bluegrass [*Poa pratensis*]
- 42.060.01 Kentucky Bluegrass - Sedge [*Poa pratensis-Carex spp.*] (Allen-Diaz 1991)
  - 42.060.02 Kentucky Bluegrass - Silver Cinquefoil [*Poa pratensis-Potentilla gracilis*] (Allen-Diaz 1991)
  - 42.060.03 Narrow Sedge - Kentucky Bluegrass [*Carex angustata-Poa pratensis*] (Allen-Diaz 1991)
  - 42.060.04 Kentucky Bluegrass - Spreading Rush - Hairy Woodrush [*Poa pratensis-Juncus patens-Luzula comosa*] Stuart *et al.* 1993)
- 42.070.00 Pampas Grass [*Cortaderia spp.*]
- 42.080.00 Giant Reed [*Arundo donax*]

44.000.00 Vernal Pools

- 44.100.00 Northern Vernal Pools
- ★44.110.00 Northern Hardpan Vernal Pools{44110}

★44.110.01 Fremont Goldfields [*Lasthenia fremontii*] (Schlising & Sanders 1982)

44.120.00 Northern Claypan Vernal Pools{44120}

★44.120.01 Coyote-thistle - Alkali Heath Pools [*Eryngium castrense-Frankenia salina*] (Taylor *et al.* 1990)

★44.120.02 Fremont Goldfields - Saltgrass Pools [*Lasthenia fremontii-Distichlis spicata*] (Taylor *et al.* 1990)

44.130.00 Northern Volcanic Vernal Pools

44.131.00 Northern Basalt Flow Vernal Pools{44131}

★44.132.00 Northern Volcanic Mudflow Vernal Pools{44132}

★44.132.01 California Goldfields - Two-crowned Downingia Pools [*Lasthenia californica-Downingiabicornuta*] (Taylor *et al.* 1990)

★44.132.02 Whiteflower Navarretia - Dwarf Blennosperma Pools [*Navarretia leucocephala-Blennosperma nana*] (Taylor *et al.* 1990)

★44.133.00 Northern Volcanic Ashflow Vernal Pools{44133}

44.300.00 Southern Vernal Pools

★44.310.00 Santa Rosa Plateau Vernal Pools{44300}

★44.310.01 Dry Marsh Bed Zone (Kepecko & Lathrop 1975)

★44.320.00 San Diego Mesa Vernal Pools{44321}

★44.330.00 San Jacinto Valley Vernal Pools

45.000.00 Meadows and Seeps not dominated by grasses

45.100.00 Sedges [*Carex* spp.]

45.110.00 Sedge [*Carex* spp.]

45.110.01 Longbeak Sedge - Shortbeak Sedge [*Carex rostrata-Carex simulata*] (Burke 1987)

45.110.02 Shortbeak Sedge - Inflated Sedge [*Carex simulata-Carex vesicaria*] (Burke 1987)

★45.110.03 Primrose Monkeyflower - Shore Sedge [*Mimulus primuloides-Carex limosa*] (Beguin & Major 1975)

★45.110.04 Skyline Bluegrass - Beaked Sedge [*Poa cusickii-Carex utriculata*] (Beguin & Major 1975)

45.110.05 Many-nerved Sedge - Yarrow [*Carex heteroneura-Achillea lanulosa*]

- (Benedict 1983)
- 45.110.06 Slough Sedge - Salt Rush [*Carex obnupta-Juncus lesueurii*] (Duebendorfer 1989)
- ★45.110.07 Serrate Sedge - Leafly Sedge [*Carex subfusca-Carex amplifolia*] (Fiedler & Leidy 1987)
- 45.110.08 Alpine Pussytoes - Vernacular Sedge [*Antennaria alpina-Carex vernacula*] (Major & Taylor 1977)
- ★45.110.09 Brewer Sedge - Wheeler Bluegrass [*Carex breweri-Poa wheeleri*] (Major & Taylor 1977)
- 45.110.10 Heller Sedge - Parry Rush [*Carex helleri-Juncus parryi*] (Major & Taylor 1977)
- ★45.110.11 Mount Dana Sedge - Little Elephant's Head [*Carex subnigricans-Pedicularis attollens*] (Major & Taylor 1977)
- 45.110.12 Bilberry - Blackish Sedge [*Vaccinium caespitosum-Carex nigricans*] (Major & Taylor 1977)
- 45.110.13 Diego Bentgrass - Ribbed Sedge [*Agrostis diegoensis-Carex multicostata*] (Stillman 1980)
- 45.110.14 Blackish Sedge - Mountain-laurel [*Carex nigricans-Kalmia polifolia*] (Taylor 1984)
- 45.110.15 Brewer Sedge [*Carex breweri*] (Taylor 1984)
- 45.110.16 Heller Sedge - Club-moss Ivesia [*Carex helleri-Ivesia lycopodioides*] (Taylor 1984)
- 45.110.17 Luzulaleaf Sedge - Water-plantain Buttercup [*Carex luzulifolia-Ranunculus alismifolius*] (Taylor 1984)
- 45.110.18 Mount Dana Sedge - Alpine Shootingstar [*Carex subnigricans-Dodecatheon alpinum*] (Taylor 1984)
- 45.110.19 Mount Dana Sedge - Alpine Pussytoes [*Carex subnigricans-Antennaria alpina*] (Taylor 1984)
- 45.110.20 Showy Sedge - Sibbaldia [*Carex spectabilis-Sibbaldia procumbens*] (Taylor 1984)
- ★45.110.21 Streambank Arnica - Congdon Sedge [*Arnica amplexicaulis-Carex congonii*] (Taylor 1984)
- 45.110.22 Vernacular Sedge - Alpine Pussytoes [*Carex vernacula-Antennaria alpina*] (Taylor 1984)
- 45.110.23 Western Yellow Cress - Dewey Sedge [*Rorippa curvisiliqua-Carex deweyana*] (Taylor 1984)
- 45.110.24 White-tipped Sedge - Junegrass [*Carex albonigra-Koeleria cristata*] (Taylor 1984)
- 45.120.00 Rocky Mountain Sedge [*Carex scopulorum*]
- 45.120.01 Rocky Mountain Sedge [*Carex scopulorum*] (Major & Taylor 1977)
- 45.120.02 Rocky Mountain Sedge - Elephant's Head [*Carex scopulorum*-

*Pedicularis groenlandica]* (Taylor 1984)

★45.120.03 Rocky Mountain Sedge - Cotton-grass [*Carex scopulorum*-*Eriophorum criniger*] (Taylor 1984)

45.130.00 Nebraska Sedge [*Carex nebrascensis*]

45.130.01 Nebraska Sedge [*Carex nebrascensis*] (Beguin & Major 1975)

45.130.02 Nebraska Sedge - Sierra Ricegrass [*Carex nebrascensis-Oryzopsis kingii*] (Halpern 1986)

45.140.00 Shorthair Sedge [*Carex filifolia*]

45.140.01 Shorthair Sedge - Spike Triisetum [*Carex filifolia-Triisetum spicatum*] (Benedict 1983)

45.140.02 Shorthair Sedge - Sierra Ricegrass [*Carex filifolia-Oryzopsis kingii*] (Benedict 1983)

45.140.03 Pussypaws - Shorthair Sedge [*Calyptidium umbellatum-Carex filifolia*] (Burke 1982)

45.140.04 Nude Buckwheat - Shorthair Sedge [*Eriogonum nudum-Carex filifolia*] (Burke 1982)

45.140.05 Talus fleabane - Shorthair Sedge [*Erigeron algidus-Carex filifolia*] (Burke 1982)

45.140.06 Shorthair Sedge [*Carex filifolia*] (Major & Taylor 1977)

45.140.07 Shorthair Sedge - Saxifrage [*Carex filifolia-Saxifraga aprica*] (Taylor 1984)

45.200.00 Spikerushes [*Eleocharis* spp.]

45.210.00 Spikerush [*Eleocharis* spp.]

45.210.01 Nevada Rush - Spikerush [*Juncus nevadensis-Eleocharis* spp.] (Beguin & Major 1975)

45.210.02 Few-flowered Spikerush [*Eleocharis pauciflora*] (Benedict 1983)

★45.120.03 Few-flowered Spikerush - Primrose Monkeyflower [*Eleocharis* spp.-*Mimulus primuloides*] (Benedict 1983)

45.120.04 Mountain Spikerush - Cowbane [*Eleocharis montevidensis-Oxypolis occidentalis*] (Halpern 1986)

45.120.05 Mountain Spikerush - Moss [*Eleocharis montevidensis-Moss*] (Halpern 1986)

★45.120.06 Pale Spikerush - Water-starwort [*Eleocharis macrostachya-Callitricha hermaphroditica*] Kepecko & Lathrop 1975)

★45.120.07 Spikerush - Water Pygmy [*Eleocharis* spp.-*Crassula aquatica*] (Kepecko & Lathrop 1975)

45.120.08 Littlebeak Spikerush - Common Three-square [*Eleocharis rostellata-Scirpus americanus*] (Odion et al. 1992)

★45.120.09 Littlebeak Spikerush - Alkali Muhly [*Eleocharis rostellata-Muhlenbergia asperifolia*] (Odion *et al.* 1992)

45.300.00 Meadow and Seep Habitats

45.310.00 Montane Meadow

- 45.310.01 Blue Wildrye - Cow-parsnip [*Elymus glaucus-Heracleum lanatum*] (Halpern 1986)
- 45.310.02 Bluejoint Reedgrass - Small-fruited Bulrush [*Calamagrostis canadensis-Scirpus microphyllus*] (Halpern 1986)
- 45.310.03 Rough Bentgrass [*Agrostis scabra*] (Halpern 1986)
- 45.310.04 Tall Mannagrass - Small-fruited Bulrush [*Glyceria elata-Scirpus microphyllus*] (Halpern 1986)
- 45.310.05 Tall Mannagrass - Stream Deervetch [*Glyceria elata-Lotus longifolius*] (Halpern 1986)
- 45.310.06 Bracken - Pale Hedge-nettle [*Pteridium aquilinum-Stachys rigida*] (Palmer 1979)
- 45.310.07 Gentian - Alpine Aster [*Gentiana newberryi-Aster alpinus*] (Ratliff 1982, 1985)
- 45.310.08 Longstalk Clover [*Trifolium longipes*] (Ratliff 1982, 1985)
- 45.310.09 Carpet Clover [*Trifolium monanthum*] (Ratliff 1982, 1985)
- 45.310.10 Angelica - Indian Paintbrush [*Angelica tomentosa-Castilleja miniata*] (Stillman 1980)
- 45.310.11 Diego Bentgrass - Ribbed Sedge [*Agrostis diegoensis-Carex multicostata*] (Stillman 1980)
- 45.310.12 Wet Montane Meadow{45110}
- 45.310.13 Dry Montane Meadow{45120}

45.320.00 Subalpine Meadow

- 45.320.01 Skyline Bluegrass - Smooth-beaked Sedge [*Poa cusickii* spp.*epilis-Carex integrifolia*] (Beguin & Major 1975)
- 45.320.02 Heretic Penstemon - Yarrow [*Penstemon heterodoxus-Achillea lanulosa*] (Benedict 1983)
- 45.320.03 Many-nerved Sedge - Yarrow [*Carex multicostata-Achillea lanulosa*] (Benedict 1983)
- 45.320.04 Tawny Buckwheat - Woolly Mountain-parsley [*Eriogonum incanum-Oreonana vestita*] (Benedict 1983)
- 45.320.05 Davis Knotweed - Tawny Buckwheat [*Polygonum davisiae-Eriogonum incanum*] (Major & Taylor 1977)
- 45.320.06 Pussypaws - Heretic Penstemon [*Calyptidium umbellatum-Penstemon heterodoxus*] (Major & Taylor 1977)
- 45.320.07 Jeffrey Shooting Star - Mertens Rush [*Dodecatheon jeffreyi-Juncus mertensianus*] (Palmer 1979)

- 45.400.00 Mountain Heather - Bilberry [*Phyllodoce* spp.-*Vaccinium caespitosum*]  
 45.400.01 Sierra Primrose [*Primula suffrutescens*] (Burke 1982)  
 45.400.02 Bilberry - Blackish Sedge [*Vaccinium caespitosum-Carex nigricans*] (Major & Taylor 1977)  
 45.400.03 Drummond Cinquefoil - Brewer Cinquefoil [*Potentilla drummondii-Potentilla breweri*] (Major & Taylor 1977)  
 45.400.04 Shorthair Reedgrass - Bilberry [*Calamagrostis breweri-Vaccinium caespitosum*] (Major & Taylor 1977)  
 45.400.05 Shorthair Reedgrass - Alpine-laurel [*Calamagrostis breweri-Kalmia polifolia*] (Taylor 1984)

★46.000.00 Alkali Playa Community

50.000.00 BOG AND MARSH

51.000.00 Bog and Fen

★51.100.00 Fen Habitat {51110}{51200}

★51.200.00 Darlingtonia Seep{51120}

52.000.00 Marsh

52.100.00 Fresh - Brackish Water Marsh{52200}

★52.101.00 Bulrush [*Scirpus* spp.]

- ★52.101.01 California Bulrush [*Scirpus californicus*] (Atwater *et al.* 1979)
- ★52.101.02 Common Three-square [*Scirpus americanus*] (Bradley 1970)
- ★52.101.03 Common Three-square - Littlebeak Spikerush [*Scirpus americanus-Eleocharis rostellata*] (Odion *et al.* 1992)
- ★52.101.04 Alkali Bulrush
- ★52.101.05 Brackish Bulrush

52.102.00 Bulrush - Cattail [*Scirpus* spp.-*Typha* spp.]

- 52.102.01 Bulrush - Cattail [*Scirpus* spp.-*Typha* spp.] (Atwater *et al.* 1979)
- 52.102.02 Common Tule - Southern Cattail [*Scirpus acutus-Typha domingensis*] (Odion *et al.* 1992)
- ★52.102.03 Alkali Bulrush - Cattail[*Scirpus* spp.-*Typha* spp.]
- ★52.102.04 Brackish Bulrush - Cattail[*Scirpus* spp.-*Typha* spp.]{52200}

52.103.00 Cattail [*Typha* spp.]

★52.103.01 Brackish Cattail

52.104.00 Bur-reed [*Sparganium* spp.]

52.105.00 Duckweed [*Lemma* spp.]

52.106.00 Mosquito Fern [*Azolla filiculoides*]

★52.107.00 Pondweeds with floating leaves [*Potamogeton* spp.]

★52.108.00 Pondweeds with submerged leaves [*Potamogeton* spp.]

★52.109.00 Quillwort [*Isoetes* spp.]

★52.110.00 Yellow Pond-lily [*Nuphar luteum*]

52.120.00 Beaked Sedge [*Carex utriculata*]

52.200.00 Salt - Alkali Marsh

★52.201.00 Pickleweed [*Salicornia* spp.]

★52.201.01 Common Pickleweed [*Salicornia virginica*] (Atwater *et al.* 1979)

★52.201.02 Common Pickleweed - Gumlaht [*Salicornia virginica-Grindelia stricta*] (Atwater *et al.* 1979)

★52.201.03 Common Pickleweed - Saltgrass [*Salicornia virginica-Distichlis spicata*] (Atwater *et al.* 1979)

★52.201.04 Common Pickleweed - Jaumea - Saltgrass [*Salicornia virginica-Jaumea carnosa*] (Eicher 1987)

★52.201.05 Bigelow Pickleweed [*Salicornia bigelovii*] (Peinado *et al.* 1994)

★52.201.06 South Coastal Pickleweed Salt Marsh{52120}

★52.201.07 Alkali Pickleweed

★52.202.00 Ditch-grass [*Ruppia* spp.]

60.000.00 RIPARIAN AND BOTTOMLAND HABITAT

61.000.00 Riparian Forest and Woodland

61.100.00 Cottonwood and Aspen [*Populus* spp.]

61.111.00 Aspen Riparian Forest

★61.111.01 Riparian Aspen Forest (Talley 1977)

- ★61.111.02 Aspen [*Populus tremuloides*] (Potter 1994)
- ★61.111.03 Aspen / White Corn-lily [*Populus tremuloides-Vertrum californicum*] (Riegel *et al.* 1990)
- ★61.111.04 Aspen / Upland (Potter 1990)
- ★61.111.05 Aspen / Leafy Aster [*Populus tremuloides-Aster foliaceus*] (Riegel *et al.* 1990)
- ★61.120.00 Black Cottonwood [*Populus balsamifera*]{61110}
  - ★61.120.01 North Coast Black Cottonwood
  - ★61.120.02 Montane Black Cottonwood{61530}

- ★61.130.00 Fremont Cottonwood [*Populus fremontii*]
  - ★61.130.01 Great Valley Cottonwood Riparian{61410}
  - ★61.130.02 Southern Cottonwood - Willow Riparian{61330}
  - ★61.130.03 Modoc - Great Basin Cottonwood - Willow Riparian
  - ★61.130.04 Mojave Riparian{61700}
  - ★61.130.05 Sonoran Cottonwood - Willow Riparian{61810}

61.200.00 Willow [*Salix* spp.]

- ★61.201.00 Arroyo Willow [*Salix lasiolepis*]
  - ★61.201.01 Central Coast Arroyo Willow Riparian{61230}
  - ★61.201.02 Southern Arroyo Willow Riparian

★61.202.00 Black Willow [*Salix gooddingii*]

★61.203.00 Hooker Willow [*Salix hookeriana*]

★61.204.00 Pacific Willow [*Salix lucida* ssp. *lasiandra*]

★61.205.00 Red Willow [*Salix laevigata*]

★61.206.00 Sitka Willow [*Salix sitchensis*]

★61.207.00 Mixed Willow [*Salix* spp.]

★61.208.00 Southern Willow Scrub [*Salix* spp.]{63320}

61.300.00 Sycamore [*Platanus* spp.]

★61.310.00 California Sycamore [*Platanus racemosa*]

- ★61.311.00 Central California Sycamore Alluvial{62100}
  - ★61.311.01 California Sycamore / Slender Wildoats [*Platanus racemosa/Avena*

*barbata*] (Keeler-Wolf *et al.* 1994)

★61.311.02 California Sycamore / Soft Chess [*Platanus racemosa/Bromus hordeaceus*] (Keeler-Wolf *et al.* 1994)

★61.312.00 Southern Sycamore - Alder Riparian{62400}

61.312.01 California Sycamore - Coast Live Oak [*Platanus racemosa/Quercus agrifolia*] (Keeler-Wolf *et al.* 1994)

★61.312.02 California Sycamore [*Platanus racemosa*] (Campbell 1980)

★61.313.00 Foothill Sycamore

★61.313.01 California Sycamore / Mulefat [*Platanus racemosa/Baccharis salicifolia*] (Keeler-Wolf *et al.* 1994)

★61.314.00 Central Coast Cottonwood - Sycamore Riparian

61.400.00 Alder [*Alnus spp.*]

★61.410.00 Red Alder [*Alnus rubra*]

★61.410.01 Douglas-fir - Red Alder / Vine Maple /Candyflower [*Pseudotsuga menziesii/Alnus rubra/Acer circinatum/Claytonia sibirica*] (Jimerson 1993)

★61.410.02 Red Alder / Salal [*Alnus rubra/Gaultheria shallon*] (Stuart *et al.* 1986)

★61.410.03 Red Alder Riparian Forest{61130}

★61.410.04 Red Alder Forest{81A00}

61.420.00 White Alder [*Alnus rhombifolia*]{61510}

61.420.01 White Alder / California Polypody [*Alnus rhombifolia/Polypodium californicum*] (Borchert *et al.* 1988)

61.420.02 White Alder / Spikenard [*Alnus rhombifolia/Aruncus dioicus*] (Jimerson 1993)

61.420.03 White Alder - Bigleaf Maple [*Alnus rhombifolia/Acer macrophyllum*] (Stuart *et al.* 1992)

61.420.04 Douglas-fir - White Alder / Himalaya Berry [*Pseudotsuga menziesii-Alnus rhombifolia/Rubus discolor*] (Stuart *et al.* 1992)

61.420.05 White Alder / Indian Rhubarb [*Alnus rhombifolia/Darmera peltata*] (Taylor 1975a, b)

61.420.06 White Alder / Miner Dogwood [*Alnus rhombifolia/Cornus sessilis*] (Taylor & Teare 1979a)

61.420.07 White Alder / Red Osier [*Alnus rhombifolia/Cornus sericea*] (Taylor & Teare 1979a)

61.420.08 White Alder / Fragrant Bedstraw [*Alnus rhombifolia/Galium*

61.420.09      *trifolium]* (Taylor & Teare 1979b)  
White Alder / Mulefat [*Alnus rhombifolia/Baccharis salicifolia*]  
(White 1994a)

61.500.00    Desert Wash Riparian

- ★61.510.00 Mesquite [*Prosopis* spp.]
  - ★61.510.01 Mesquite Dune Scrub (Spolsky 1979)
  - ★61.510.02 Acacia - Mesquite thickets [*Acacia* spp.-*Prosopis* spp.] (Spolsky 1979)
  - ★61.510.03 Mesquite Dry Lake (Spolsky 1979)
  - ★61.510.04 Great Valley Mesquite Scrub{63420}
  - ★61.510.05 Mesquite Bosque{61820}

61.520.00    Fan Palm [*Washingtonia filifera*]

- ★61.520.01 Desert Fan Palm{62300}
- 61.520.02    Fan Palm - Sycamore [*Washingtonia filifera-Platanus* spp.] (Spolsky 1979)

★61.530.00 Blue Palo Verde - Ironwood - Smoke Tree [*Cercidium floridum-Olneya tesota-Psorothamnus spinosa*]

- ★61.530.01 Mixed Wash Woodland (Spolsky 1979)

61.540.00    Blue Palo Verde

- ★61.540.01 Blue Palo Verde Wash Woodland (Spolsky 1979)

61.550.00    Desert Willow

- ★61.550.01 Desert-willow Woodland (Spolsky 1979)

61.560.00    Ironwood

- ★61.560.01 Ironwood Woodland (Spolsky 1979)

61.570.00    Smoke Tree

- ★61.570.01 Smoketree Wash Woodland (Spolsky 1979)

61.800.00    Walnut [*Juglans* spp.]

★61.810.00 Hind's Walnut Unique Stands{71120}

61.900.00    Mixed Riparian Forest and Woodland

★61.910.00 Great Valley Mixed Riparian Forest{61420}

★61.920.00 Southern Mixed Riparian Forest{61340}

63.000.00 Riparian Scrub

63.100.00 Willow [*Salix* spp.]

★63.110.00 Narrowleaf Willow [*Salix exigua*]{63410}

63.120.00 Sandbar willow [*Salix sessifolia*]

★63.130.00 Southern Willow

★63.140.00 Great Valley Willow

★63.150.00 Montane Wetland Shrub Habitat

★63.160.00 Subalpine Wetland Shrub Habitat

63.160.01 Coville Ragwort - Showy Sedge [*Senecio scorzonella-Carex spectabilis*] (Burke 1982)

★63.160.02 Sierra Willow / Arrowhead Butterweed [*Salix eastwoodiae-Senecio triangularis*] (Major & Taylor 1977)

★63.160.03 Grayleaf Willow - Meadow Onion [*Salix oreastera-Allium validum*] (Taylor 1984)

★63.160.04 Grayleaf Willow - Shorthair [*Salix oreastera-Carex filifolia*] (Taylor 1984)

★63.160.05 Mountain Spiraea [*Spiraea densiflora*] (Taylor 1984)

★63.160.06 Tealeaf Willow - Showy Sedge [*Salix planifolia-Carex spectabilis*] (Taylor 1984)

63.200.00 Alder [*Alnus* spp.]

★63.210.00 Mountain Alder [*Alnus incana*]{63500}

★63.220.00 Sitka Alder [*Alnus viridis*]

★63.300.00 Buttonbush [*Cephaelanthus occidentalis*]{63430}

63.400.00 Elderberry [*Sambucus* spp.]

63.410.00 Mexican Elderberry [*Sambucus mexicana*]

63.410.10 Elderberry Savanna{63440}

63.500.00 Baccharis [*Baccharis* spp.]

63.510.00 Mulefat [*Baccharis salicifolia*]{63310}

63.520.00 Emory Baccharis [*Baccharis emoryi*]

63.600.00 Birch [*Betula* spp.]

★63.610.00 Water Birch [*Betula occidentalis*]{63510}

63.700.00 Arrow Weed [*Pluchea* spp.]{63820}

63.710.00 Arrow Weed [*Pluchea sericea*]

63.800.00 Tamarisk [*Tamarix* spp.]{63810}

63.810.00 Tamarisk [*Tamarix* spp.]

★63.900.00 Southern Riparian Scrub

70.000.00 BROAD LEAFED UPLAND TREE DOMINATED

71.000.00 Tree Oak dominated

71.010.00 Black Oak [*Quercus kelloggii*]

71.010.01 Black Oak - Canyon Live Oak / Poison-oak [*Quercus kelloggii-Quercus chrysolepis/Toxicodendron diversilobum*] (Allen et al. 1991)  
★71.010.02 Black Oak - Coast Live Oak - Pine / Ocean Spray [*Quercus kelloggii-Quercus chrysolepis/Holodiscus discolor*] (Allen et al. 1991)

71.010.03 Black Oak / Deerbrush [*Quercus kelloggii/Ceanothus integerrimus*] (Allen et al. 1991)

71.010.04 Black Oak / Deerbrush - Poison-oak / Bracken [*Quercus kelloggii/Ceanothus integerrimus-Toxicodendron diversilobum/Pteridium aquilinum*] (Allen et al. 1991)

71.010.05 Black Oak / Grass [*Quercus kelloggii/Trielea spp.*] (Allen et al. 1991)

71.010.06 Black Oak / Greenleaf Manzanita [*Quercus kelloggii/Arctostaphylos patula*] (Allen et al. 1991)

★71.010.07 Black Oak - Madrone - Coast Live Oak [*Quercus kelloggii-Arbutus menziesii-Quercus chrysolepis*] (Allen et al. 1991)

71.010.08 Black Oak / Poison-oak [*Quercus kelloggii/Toxicodendron diversilobum*] (Allen et al. 1991)

71.010.09 Black Oak / Poison-oak / Grass [*Quercus kelloggii/Toxicodendron diversilobum/Trielea spp.*] (Allen et al. 1991)

- 71.010.10 Black Oak / Poison-oak - Styrax / Grass Nut [*Quercus kelloggii*/*Toxicodendron diversilobum*-*Styrax officinalis*/*Trielleia laxa*] (Allen *et al.* 1991)
- ★71.010.11 Black Oak - Valley Oak [*Quercus kelloggii*-*Quercus lobata*] (Allen *et al.* 1991)
- 71.010.12 Canyon Live Oak - Black Oak [*Quercus chryssolepis*-*Quercus kelloggii*] (Allen *et al.* 1991)
- 71.010.13 Mixed Oak - Coast Live Oak / Poison-oak [*Quercus* spp.-*Quercus agrifolia*/*Toxicodendron diversilobum*] (Allen *et al.* 1991)
- 71.010.14 Coulter Pine - Black Oak [*Pinus coulteri*-*Quercus kelloggii*] (Keeler-Wolf 1986b, 1990b)
- 71.010.15 Black Oak [*Quercus kelloggii*] (Keeler-Wolf 1987f)
- 71.010.16 Black Oak - Douglas-fir - Bigleaf Maple [*Quercus kelloggii*-*Pseudotsuga menziesii*-*Acer macrophyllum*] (Jimerson 1993)
- ★71.010.17 Black Oak - Douglas-fir [*Quercus kelloggii*-*Pseudotsuga menziesii*] (Wainwright & Barbour 1984)
- 71.010.18 Black Oak Woodland{71120}
- 71.010.19 Black Oak Forest{81340}
- 71.020.00 Blue Oak [*Quercus douglasii*]{71140}
- 71.020.01 Blue Oak - Coast Live Oak / Grass [*Quercus douglasii*-*Quercus agrifolia*/Grass] (Allen *et al.* 1991)
- 71.020.02 Blue Oak - Foothill Pine / Grass [*Quercus douglasii*-*Pinus sabinana*/Grass] (Allen *et al.* 1991)
- 71.020.03 Blue Oak - Foothill Pine / Wedgeleaf Ceanothus - Birchleaf Mountain-mahogany [*Quercus douglasii*-*Pinus sabinana*/*Ceanothus cuneatus*-*Cercocarpus betuloides*] (Allen *et al.* 1991)
- 71.020.04 Blue Oak - Foothill Pine / Whiteleaf Manzanita / Grass [*Quercus douglasii*-*Pinus sabinana*/*Arctostaphylos viscida*/Grass] (Allen *et al.* 1991)
- 71.020.05 Blue Oak / Grass [*Quercus douglasii*/Grass] (Allen *et al.* 1991) - (Includes Blue Oak / Bajada Lupine - Tree Clover, [*Quercus douglasii*/*Lupinus concinnus*-*Trifolium ciliolatum*], Blue Oak / Blue Larkspur-California Phacelia, [*Quercus douglasii*/*Delphinium parryi*-*Phacelia californica*], Blue Oak / Blue-eyed Mary-Rigipappus, [*Quercus douglasii*/*Collinsia sparsiflora*-*Rigiopappus leptocladus*], Blue Oak / Chile Lotus - Purple Needlegrass, [*Quercus douglasii*/*Lotus subpinnatus*-*Stipa pulchra*], Blue Oak / Common Fiddleneck - Rusty Popcorn Flower, [*Quercus douglasii*/*Amsinckia intermedia*-*Plagiobothrys nothofulvus*], Blue Oak / Foxtail - Johnny-jump-up, [*Quercus douglasii*/*Hordeum leporinum*-*Viola*]

- pedunculata]*, Blue Oak / Phloxleaf Bedstraw - Bajada Lupine, [*Quercus douglasii/Galium andrewsii-Lupinus concinnus*], Blue Oak / Wand Buckwheat /Chile Lotus - California Plantain, [*Quercus douglasii/Eriogonum elongatum/Lotus subpinnatus-Plantago erecta*], Blue Oak / Wart Spurge - Goldenback Fern, [*Quercus douglasii/Euphorbia spathulata-Pentagramma triangularis*], Blue Oak / Whitestem Filaree - Foxtail,[*Quercus douglasii/Erodium moschatum-Hordeum leporinum*], of Borchert *et al.* 1993a, *Quercus douglasii* (and Blue Oak/Lemmon Needlegrass of Newton 1987) [*Quercus douglasii/Stipa lemmonii*]
- 71.020.06 Blue Oak - Interior Live Oak / Grass [*Quercus douglasii-Quercus wislizenii*/Grass] (Allen *et al.* 1991) -(Includes Blue Oak - Interior Live Oak / Mission Star [*Quercus douglasii-Quercus wislizenii/Lithophragma cymbalaria*] of Borchert *et al.* 1993a)
- 71.020.07 Blue Oak - Interior Live Oak / Wedgeleaf Ceanothus /Grass [*Quercus douglasii-Quercus wislizenii/Ceanothus cuneatus*] (Allen *et al.* 1991)
- 71.020.08 Blue Oak - Linearleaf Goldenbush [*Quercus douglasii-Ericameria linearifolia*] (Allen *et al.* 1991)
- 71.020.09 Blue Oak - Understory Oak / Grass [*Quercus douglasii-Quercus spp.*/Grass] (Allen *et al.* 1991)
- ★71.020.10 Blue Oak - Valley Oak - Coast Live Oak / Grass [*Quercus douglasii-Quercus lobata-Quercus agrifolia*/Grass] (Allen *et al.* 1991)
- 71.020.11 Blue Oak - Valley Oak / Grass [*Quercus douglasii-Quercus lobata*/Grass] (Allen *et al.* 1991)
- 71.020.12 Blue Oak / Wedgeleaf Ceanothus / Grass [*Quercus douglasii/Ceanothus cuneatus*/Grass] (Allen *et al.* 1991)
- 71.020.13 Interior Live Oak - Blue Oak - Foothill Pine / Grass [*Quercus wislizenii-Quercus douglasii-Pinus sabiniana*/Grass] (Allen *et al.* 1991)
- ★71.020.14 Blue Oak / Birchleaf Mountain-mahogany / Bowlesia [*Quercus douglasii/Cercocarpus betuloides/Bowlesia incana*] (Borchert *et al.* 1993a)
- 71.020.15 Blue Oak / Hillside Gooseberry / Ripgut Brome [*Quercus douglasii/Ribes californica/Bromus diandrus*] (Borchert *et al.* 1993a)
- ★71.030.00 Oregon White Oak [*Quercus garryana* var. *garryana*]
- ★71.030.01 Oregon White Oak - Black Oak / Tall-oatgrass [*Quercus garryana* var. *garryana-Quercus kelloggii/Arrhenatherum elatius*] (Jimerson 1993)
- ★71.030.02 Oregon White Oak - Brewer Oak / California Fescue [*Quercus garryana* var. *garryana-Quercus garryana* var. *breweri/Festuca californica*] (Jimerson 1993)

- ★71.030.03 Oregon White Oak - Douglas-fir / California Fescue [*Quercus garryana* var. *garryana*-*Pseudotsuga menziesii/Festuca californica*] (Jimerson 1993)
- ★71.030.04 Oregon White Oak / Poison-oak [*Quercus garryana* var. *garryana*/*Toxicodendron diversilobum*] (Leitner & Leitner 1988)
- ★71.030.05 Oregon White Oak / Common Snowberry [*Quercus garryana* var. *garryana*/*Symporicarpos albus*] (1987)
- ★71.030.06 Oregon White Oak / Dogtail [*Quercus garryana* var. *garryana*/*Cynosurus cristatus*] (Sugihara et al. 1987)
- ★71.030.07 Oregon White Oak / Klamath Gooseberry [*Quercus garryana* var. *garryana*/*Ribes roezlii*] (Sugihara et al. 1987)
- ★71.030.08 Oregon White Oak / Mock-orange [*Quercus garryana* var. *garryana*/*Philadelphus lewisii*] (Sugihara et al. 1987)
- ★71.030.09 Oregon White Oak / Poison Larkspur [*Quercus garryana* var. *garryana*/*Delphinium trollifolium*] (Sugihara et al. 1987)
- ★71.030.10 Oregon White Oak / Orchid Grass [*Quercus garryana* var. *garryana*/*Dactylis glomerata*] (Sugihara et al. 1987)
- ★71.030.11 Oregon White Oak / California Brome [*Quercus garryana* var. *garryana*/*Bromus californicus*] (Taylor and Teare 1979a)
- 71.030.12 Oregon Oak Woodland{71110}
  
- ★71.040.00 Valley Oak [*Quercus lobata*]{61430}
- ★71.040.01 Black Oak - Valley Oak / Grass [*Quercus kelloggii*-*Quercus lobata*/Grass] (Allen et al. 1991a)
- ★71.040.02 Blue Oak - Valley Oak / Grass [*Quercus douglasii*-*Quercus lobata*/Grass] (Allen et al. 1991a)
- ★71.040.03 Coast Live Oak - Valley Oak / Poison-oak [*Quercus agrifolia*-*Quercus lobata*/*Toxicodendron diversilobum*] (Allen et al. 1991a)
- ★71.040.04 Mixed Oak - Valley Oak / Poison-oak - California Coffeeberry [*Quercus* spp.- *Quercus lobata*/*Toxicodendron diversilobum*-*Rhamnus californica*] (Allen et al. 1991a)
- ★71.040.05 Valley Oak / Grass [*Quercus lobata*/Grass] (Allen et al. 1991a)
- ★71.040.06 Valley Oak - Coast Live Oak / Grass [*Quercus lobata*-*Quercus agrifolia*/Grass] (Allen et al. 1991a)
- ★71.040.07 Great Valley Valley Oak Riparian{61430}
- ★71.040.08 Valley Oak Woodland [*Quercus* spp.]{71130}
  
- 71.050.00 Canyon Live Oak [*Quercus chrysolepis*]
- 71.050.01 Canyon Live Oak - Madrone - Tanoak [*Quercus chrysolepis*-*Arbutus menziesii*-*Lithocarpus densiflora*] (Campbell 1980)
- ★71.050.02 Sugar Pine - Canyon Live Oak [*Pinus lambertiana*-*Quercus chrysolepis*] (Griffin 1976a)
- ★71.050.03 Canyon Live Oak - Deerbrush [*Quercus chrysolepis*-*Ceanothus*

		<i>integerrimus</i> ] (Gordon & White 1994)
71.050.04		Canyon Live Oak Woodland [ <i>Quercus chryssolepis</i> ] (Meier 1979)
71.050.05		Canyon Live Oak - Douglas-fir [ <i>Quercus chryssolepis-Pseudotsuga menziesii</i> ] (Mize 1973)
★71.050.06		Canyon Live Oak / Lemmon Catchfly [ <i>Quercus chryssolepis/Silene lemmonii</i> ] (NDDB)
★71.050.07		Canyon Live Oak- Oregon White Oak / Goldenback Fern [ <i>Quercus chryssolepis-Quercus garryana</i> var. <i>garryana/Pentagramma triangularis</i> ] (Sawyer & Stillman 1977)
71.050.08		Canyon Live Oak / Narrowleaf Sword Fern [ <i>Quercus chryssolepis/Polystichum imbricans</i> ] (Sawyer & Stillman 1977)
71.050.09		Canyon Live Oak / Indian Manzanita [ <i>Quercus chryssolepis/Arctostaphylos mewukka</i> ] (Taylor & Randal 1977a)
71.050.10		Douglas-fir - Canyon Live Oak [ <i>Pseudotsuga menziesii-Quercus chryssolepis</i> ] (Taylor & Teare 1979a)
71.050.11		Canyon Live Oak [ <i>Quercus chryssolepis</i> ] Ravine forest (Holland 1986){61350}
71.050.12		Canyon Live Oak Forest{81320}
71.060.00	Coast Live Oak [ <i>Quercus agrifolia</i> ]	
71.060.01		Blue Oak - Coast Live Oak / Grass [ <i>Quercus douglasii-Quercus agrifolia/Grass</i> ] (Allen <i>et al.</i> 1991)
71.060.02		Coast Live Oak [ <i>Quercus agrifolia</i> ] (Allen <i>et al.</i> 1991)
71.060.03		Coast Live Oak - Bigleaf Maple / California Coffeeberry -Ocean Spray [ <i>Quercus agrifolia-Acer macrophyllum/Rhamnus californica-Holodiscus discolor</i> ] (Allen <i>et al.</i> 1991)
71.060.04		Coast Live Oak / Blackberry / Bracken [ <i>Quercus agrifolia/Rubus spp./Pteridium aquilinum</i> ] (Allen <i>et al.</i> 1991)
71.060.05		Coast Live Oak - California Bay / Toyon - Scrub Oak [ <i>Quercus agrifolia-Umbellularia californica/Heteromeles arbutifolia-Quercus berberidifolia</i> ] (Allen <i>et al.</i> 1991)
71.060.06		Coast Live Oak / California Coffeeberry - Toyon [ <i>Quercus agrifolia/Rhamnus californica-Heteromeles arbutifolia</i> ] (Allen <i>et al.</i> 1991)
71.060.07		Coast Live Oak / Chamise - Black Sage [ <i>Quercus agrifolia/Adenostoma fasciculatum-Salvia mellifera</i> ] (Allen <i>et al.</i> 1991)
71.060.08		Coast Live Oak / California Sagebrush / Grass [ <i>Quercus agrifolia/Artemisia californica/Grass</i> ] (Allen <i>et al.</i> 1991)
71.060.09		Coast Live Oak / Grass [ <i>Quercus agrifolia/Grass</i> ] (Allen <i>et al.</i> 1991)
71.060.10		Coast Live Oak - Madrone / Hazel - Blackberry [ <i>Quercus agrifolia-Arbutus menziesii/Corylus cornuta-Rubus spp.</i> ] (Allen <i>et al.</i> 1991)

- 71.060.11 Coast Live Oak / Ocean Spray - Common Snowberry [*Quercus agrifolia/Holodiscus discolor-Symporicarpos albus*] (Allen *et al.* 1991)
- 71.060.12 Coast Live Oak / Poison-oak / Grass [*Quercus agrifolia / Toxicodendron diversilobum*/Grass] (Allen *et al.* 1991)
- 71.060.13 Coast Live Oak / Poison-oak [*Quercus agrifolia/Toxicodendron diversilobum*] (Allen *et al.* 1991)
- 71.060.14 Coast Live Oak / Toyon / Grass [*Quercus agrifolia/Heteromeles arbutifolia*/Grass] (Allen *et al.* 1991)
- 71.060.15 Coast Live Oak / Toyon - Poison-oak [*Quercus agrifolia/Heteromeles arbutifolia-Toxicodendron diversilobum*] (Allen *et al.* 1991)
- 71.060.16 Coast Live Oak / Hairyleaf Ceanothus [*Quercus agrifolia/Ceanothus oliganthus*] (Gordon & White 1994)
- 71.060.17 Coast Live Oak /Common Snowberry [*Quercus agrifolia/Symporicarpos albus*] (Keeler-Wolf 1994)
- ★71.060.18 Coast Live Oak - Black Oak [*Quercus agrifolia-Quercus kelloggii*] (Wainwright & Barbour 1984)
- 71.060.19 Coast Live Oak Woodland{71160}
- ★71.060.20 Southern Coast Live Oak Riparian Forest{61310}

★71.070.00 Engelmann Oak [*Quercus engelmannii*]

★71.070.01 Open Engelmann Oak Woodland{71181}

71.080.00 Interior Live Oak [*Quercus wislizenii*]

71.080.01 Interior Live Oak - Blue Oak - Foothill Pine [*Quercus wislizenii-Quercus douglasii-Pinus sabiniana*] (Allen *et al.* 1991)

71.080.02 Interior Live Oak - Foothill Pine / Common Manzanita [*Quercus wislizenii-Pinus sabiniana-Arctostaphylos manzanita*] (Allen *et al.* 1991)

71.080.03 Interior Live Oak - Madrone / Poison-oak [*Quercus wislizenii-Arbutus menziesii/Toxicodendron diversilobum*] (Allen *et al.* 1991)

71.080.04 Interior Live Oak / Whiteleaf Manzanita [*Quercus wislizenii/Arctostaphylos viscida*] (Allen *et al.* 1991)

71.080.05 Interior Live Oak / Yerba Santa / Grass [*Quercus wislizenii/Eriodictyon californicum*/Grass] (Allen *et al.* 1991)

71.080.06 Interior Live Oak Woodland{71150}

71.080.07 Interior Live Oak Forest{81330}

★71.090.00 Island Oak [*Quercus tomentella*]{71190}

71.100.00 Mixed Oak [*Quercus* spp.]

71.100.01 Black Oak - Valley Oak / Grass [*Quercus kelloggii-Quercus lobata*/Grass] (Allen *et al.* 1991)

- 71.100.02 Black Oak - Valley Oak - Coast Live Oak / Grass [*Quercus kelloggii*-*Quercus lobata*-*Quercus agrifolia*/Grass] (Allen *et al.* 1991)
- 71.100.03 Interior Live Oak / Toyon [*Quercus wislizenii*/*Heteromeles arbutifolia*] (Allen *et al.* 1991)
- 71.100.04 Mixed Oak - Black Oak / Grass [*Quercus* spp.-*Quercus kelloggii*/Grass] (Allen *et al.* 1991)
- 71.100.05 Mixed Oak - California Buckeye / Grass [*Quercus* spp.-*Aesculus californica*/Grass] (Allen *et al.* 1991)
- 71.100.06 Mixed Oak - Coast Live Oak / Poison-oak [*Quercus* spp.-*Quercus agrifolia*/*Toxicodendron diversilobum*] (Allen *et al.* 1991)
- 71.100.07 Mixed Oak - Foothill Pine / Grass [*Quercus* spp.-*Pinus sabiniana*/Grass] (Allen *et al.* 1991)
- 71.100.08 Mixed Oak / Grass [*Quercus* spp./Grass] (Allen *et al.* 1991)
- 71.100.09 Mixed Oak - Interior Live Oak - Foothill Pine [*Quercus* spp.-*Quercus wislizenii*-*Pinus sabinana*] (Allen *et al.* 1991)
- 71.100.10 Mixed Oak / Poison-oak - Coyote Brush [*Quercus* spp./*Toxicodendron diversilobum*-*Baccharis pilularis*] (Allen *et al.* 1991)
- 71.100.11 Mixed Oak - Valley Oak / Poison-oak - California Coffeeberry [*Quercus* spp.-*Quercus lobata*/*Toxicodendron diversilobum*-*Rhamnus californica*] (Allen *et al.* 1991)
- 71.100.12 Oregon White Oak - Black Oak / Firecracker Flower [*Quercus garryana* var. *garryana*-*Quercus kelloggii*/*Dichelostemma ida-maia*] (Jimerson 1993)
- 71.100.13 Oregon White Oak - Black Oak / Tall-oatgrass [*Quercus garryana* var. *garryana*-*Quercus kelloggii*/*Arrhenatherum elatius*] (Jimerson 1993)
- 72.000.00 Upland Walnut [*Juglans* spp.]
- 72.100.00 California Walnut [*Juglans californica* var. *californica*]
- ★72.100.01 California Walnut Woodland{71210}
  - ★72.100.02 California Walnut Forest{81600}
- 73.000.00 Tanoak Forest and Woodland
- 73.100.00 Tanoak [*Lithocarpus densiflora*]{81400}
- 73.100.01 Sugar Pine - Tanoak / Poison-oak [*Pinus lambertina*-*Lithocarpus densiflora*] (Griffin 1976)
- 73.100.02 Tanoak / California Coffeeberry [*Lithocarpus densiflora*/*Rhamnus californica*] (Sawyer 1981a)
- ★74.000.00 California Bay [*Umbellularia californica*]

- 74.100.00 California Bay [*Umbellularia californica*]{81200}  
 74.100.01 California Bay [*Umbellularia californica*] (Campbell 1980)  
 74.100.02 Tanoak - California Bay [*Lithocarpus densiflora-Umbellularia californica*] (Fiedler & Leidy 1987)  
 74.100.03 California Bay - Madrone [*Umbellularia californica-Arbutus menziesii*] (Parker 1990)

75.000.00 California Buckeye [*Aesculus californica*]

- ★75.100.00 California Buckeye [*Aesculus californica*]

76.000.00 *Cercocarpus*

- 76.100.00 Birchleaf Mountain-mahogany [*Cercocarpus betuloides*]  
 76.100.01 Klamath Birchleaf Mountain-mahogany [*Cercocarpus* spp.] (Taylor 1979a)  
 76.100.02 Peninsular Range Birchleaf Mountain-mahogany [*Cercocarpus* spp.] (Gordon & White 1994)

76.200.00 Curlleaf Mountain-mahogany [*Cercocarpus ledifolius*]

77.000.00 Catalina Ironwood Unique Stands [*Lyrothamnus floribundus*]{81700}

78.000.00 Hollyleaf Cherry Unique Stands [*Prunus ilicifolia*]  
 ★78.100.00 Island Hollyleaf Cherry{81810}

- ★78.200.00 Mainland Hollyleaf Cherry{81820}

79.000.00 Eucalyptus [*Eucalyptus* spp.]

80.000.00 CONIFEROUS UPLAND FOREST AND WOODLAND

81.000.00 *Cupressus*

- ★81.100.00 Port Orford-cedar [*Chamaecyparis lawsoniana*]{82500}  
 ★81.100.01 Port Orford-cedar / Western Azalea [*Chamaecyparis lawsoniana/Rhododendron occidentale*] (Jimerson 1994)  
 ★81.100.02 Port Orford-cedar - Douglas-fir / Huckleberry Oak [*Chamaecyparis lawsoniana-Pseudotsuga menziesii/Quercus vaccinifolia*] (Jimerson 1994)  
 ★81.100.03 Port Orford-cedar - Shasta Fir / Sadler Oak - Thinleaf Huckleberry

- [*Chamaecyparis lawsoniana*-*Abies magnifica* var. *shastensis*/*Quercus sadleriana*-*Vaccinium membranaceum*] (Jimerson 1994)
- ★81.100.04 Port Orford-cedar / Rhododendron - Salal [*Chamaecyparis lawsoniana*/*Rhododendron macrophyllum*-*Gaultheria shallon*] (Jimerson 1994)
- ★81.100.05 Port Orford-cedar / Salal [*Chamaecyparis lawsoniana*/*Gaultheria shallon*] (Jimerson 1994)
- ★81.100.06 Port Orford-cedar - White Fir / Azalea [*Chamaecyparis lawsoniana*-*Abies concolor*/*Rhododendron* spp.] (Jimerson 1994)
- ★81.100.07 Port Orford-cedar - White Fir / Sadler Oak [*Chamaecyparis lawsoniana*-*Abies concolor*/*Quercus sadleriana*] (Jimerson 1994)
- ★81.100.08 Port Orford-cedar - White Fir / Herb [*Chamaecyparis lawsoniana*-*Abies concolor*/Herb] (Jimerson 1994)
- ★81.100.09 Port Orford-cedar - White Fir / Huckleberry Oak [*Chamaecyparis lawsoniana*-*Abies concolor*/*Quercus vaccinifolia*] (Jimerson 1994)
- ★81.100.10 Port Orford-cedar - Western White Pine / Huckleberry Oak [*Chamaecyparis lawsoniana*-*Pinus monticola*/*Quercus vaccinifolia*] (Jimerson 1994)
- ★81.100.11 Tanoak - Port Orford-cedar - California Bay [*Lithocarpus densiflora*-*Chamaecyparis lawsoniana*-*Umbellularia californica*] (Jimerson 1994)
- ★81.100.12 Tanoak - Port Orford-cedar / Little Oregon-grape / Twinflower [*Lithocarpus densiflora*-*Chamaecyparis lawsoniana*/*Berberis nervosa*/*Linnaea borealis*] (Jimerson 1994)
- ★81.100.13 Tanoak - Port Orford-cedar / Black Huckleberry [*Lithocarpus densiflora*-*Chamaecyparis lawsoniana*/*Vaccinium ovatum*] (Jimerson 1994)
- ★81.100.14 Tanoak - Port Orford-cedar / Black Huckleberry - Azalea [*Lithocarpus densiflora*-*Chamaecyparis lawsoniana*/*Vaccinium ovatum*-*Rhododendron* spp.] (Jimerson 1994)
- ★81.100.15 Tanoak - Port Orford-cedar / Spikenard [*Lithocarpus densiflora*-*Chamaecyparis lawsoniana*/*Aruncus dioicus*] (Jimerson 1994)
- ★81.100.16 Tanoak - Port Orford-cedar / Vine Maple [*Lithocarpus densiflora*-*Chamaecyparis lawsoniana*/*Acer circinatum*] (Jimerson 1994)
- ★81.100.17 Pine / Rhododendron [*Pinus* spp./*Rhododendron* spp.] (Simpson 1980)
- ★81.200.00 Alaska Yellow-cedar Unique Stands [*Chamaecyparis nootkatensis*]
- ★81.300.00 McNab Cypress [*Cupressus macnabiana*]
- ★81.400.00 Pygmy Cypress [*Cupressus goveniana* ssp. *gotheniana*]{83161}

- ★81.400.01 Pygmy Cypress/Lichen [*Cupressus goveniana* ssp. *goveniana/Cladonia bellidiflora*] (Westman & Whittaker 1975)
- ★81.400.02 Pygmy Cypress/Lichen [*Cupressus goveniana* ssp. *goveniana/Cladina impexa*] (Westman & Whittaker 1975)
- ★81.400.03 Pygmy Cypress / *Ramalina tharusta* [*Cupressus goveniana* ssp. *goveniana*] (Westman & Whittaker 1975)
- ★81.400.04 Pygmy Cypress / *Usnea subfloridana* [*Cupressus goveniana* ssp. *goveniana*] (Westman & Whittaker 1975)

★81.500.00 Sargent Cypress [*Cupressus sargentii*]

81.600.00 Unique Stands

- ★81.600.10 Baker Cypress Stands [*Cupressus bakeri*]
- ★81.600.20 Cuyamaca Cypress Stands [*Cupressus stephensonii*]
- ★81.600.30 Gowen Cypress Stands [*Cupressus goveniana* ssp. *goveniana*]{83162}
- ★81.600.40 Monterey Cypress Stands [*Cupressus macrocarpa*]{83150}
- ★81.600.50 Piute Cypress Stands [*Cupressus nevadensis*]{83230}
- ★81.600.60 Santa Cruz Cypress Stands [*Cupressus abramsiana*]{83220}
- ★81.600.70 Tecate Cypress Stands [*Cupressus forbesii*]

82.000.00 *Pseudotsuga*

★82.100.00 Bigcone Douglas-fir [*Pseudotsuga macrocarpa*]

82.200.00 Douglas-fir [*Pseudotsuga menziesii*]

- ★82.200.01 Douglas-fir - Bigleaf Maple / Hazel [*Pseudotsuga menziesii-Acer macrophyllum/Corylus cornuta*] (Fites 1993)
- ★82.200.02 Douglas-fir - Bigleaf Maple / Trail Plant [*Pseudotsuga menziesii/Adenocaulon bicolor*] (Fites 1993)
- ★82.200.03 Douglas-fir - Pacific Dogwood / Hazel [*Pseudotsuga menziesii-Cornus nuttallii/Corylus cornuta*] (Fites 1993)
- ★82.200.04 Douglas-fir / Hazel / Trail Plant [*Pseudotsuga menziesii/Corylus cornuta/Adenocaulon bicolor*] (Fites 1993)

★82.200.05 Douglas-fir - California Bay / Poison-oak [*Pseudotsuga menziesii-Umbellularia californica/Toxicodondron diversilobum*] (Jimerson 1993)

★82.200.06 Douglas-fir - Canyon Live Oak - Madrone / Poison-oak [*Pseudotsuga menziesii-Quercus chrysolepis-Arbutus menziesii/Toxicodendron diversilobum*] (Jimerson 1993)

★82.200.07 Douglas-fir - Canyon Live Oak / Rockpile [*Pseudotsuga menziesii-*

- Quercus chrysolepis/Rockpile] (Jimerson 1993)*
- ★82.200.08 Douglas-fir - Canyon Live Oak - Tanoak [*Pseudotsuga menziesii-Quercus chrysolepis-Lithocarpus densiflora*] (Jimerson 1993)
- ★82.200.09 Douglas-fir - Chinquapin / Bear-grass [*Pseudotsuga menziesii-Chrysolepis chrysophylla/Xerophyllum tenax*] (Jimerson 1993)
- ★82.200.10 Douglas-fir - Chinquapin / Rhododendron - Little Oregon- grape [*Pseudotsuga menziesii-Chrysolepis chrysophylla/Rhododendron spp.-Berberis nervosa*] (Jimerson 1993)
- ★82.200.11 Douglas-fir - Chinquapin / Rhododendron - Sadler Oak /Bear-grass [*Pseudotsuga menziesii-Chrysolepis chrysophylla/Rhododendron spp.-Quercus sadleriana/Xerophyllum tenax*] (Jimerson 1993)
- ★82.200.12 Douglas-fir - Chinquapin - Tanoak [*Pseudotsuga menziesii-Chrysolepis chrysophylla-Lithocarpus densiflora*] (Jimerson 1993)
- ★82.200.13 Douglas-fir - Chinquapin - Tanoak / Little Oregon-grape [*Pseudotsuga menziesii-Chrysolepis chrysophyllum-Lithocarpus densiflora/Berberis nervosa*] (Jimerson 1993)
- ★82.200.14 Douglas-fir / Hazel [*Pseudotsuga menziesii/Corylus cornuta*] (Jimerson 1993)
- ★82.200.15 Douglas-fir / Huckleberry Oak [*Pseudotsuga menziesii/Quercus vaccinifolia*] (Jimerson 1993)
- ★82.200.16 Douglas-fir / Huckleberry Oak - Bush Tanoak [*Pseudotsuga menziesii/Quercus vaccinifolia-Lithocarpus densiflora var.echinoides*] (Jimerson 1993)
- ★82.200.17 Douglas-fir - Incense-Cedar / California Fescue [*Pseudotsuga menziesii-Calocedrus decurrens/Festuca californica*] (Jimerson 1993)
- ★82.200.18 Douglas-fir / Yerba de Selva [*Pseudotsuga menziesii/Whipplea modesta*] (Jimerson 1993)
- ★82.200.19 Douglas-fir - Oregon White Oak / Grass [*Pseudotsuga menziesii-Quercus garryana* var. *garryana*/Grass] (Jimerson 1993)
- ★82.200.20 Douglas-fir / Vine Maple - Little Oregon-grape [*Pseudotsuga menziesii/Acer circinatum-Berberis nervosa*] (Jimerson 1993)
- 82.200.21 Douglas-fir - Bigleaf Maple / Sword Fern [*Pseudotsuga menziesii-Acer macrophyllum/Polystichum munitum*] (Jimerson 1993)
- ★82.200.22 Port Orford-cedar - Douglas-fir / Huckleberry Oak [*Chamaecyparis lawsoniana-Pseudotsuga menziesii/Quercus vaccinifolia*] (Jimerson 1993)
- ★82.200.23 Port Orford-cedar - White Fir / Huckleberry Oak [*Chamaecyparis lawsoniana-Abies concolor/Quercus vaccinifolia*] (Jimerson 1993)
- ★82.200.24 Port Orford-cedar - White Fir / Sadler Oak [*Chamaecyparis lawsoniana-Abies concolor/Quercus sadleriana*] (Jimerson 1993)
- ★82.200.25 Red Fir - White Fir / Pinemat Manzanita [*Abies magnifica-Abies concolor/Arctostaphylos nevadensis*] (Jimerson 1993)

- ★82.200.26 White Fir - Chinquapin [*Abies concolor-Chrysolepis chrysophylla*] (Jimerson 1993)
- ★82.200.27 White Fir - Douglas-fir / Bear-grass [*Abies concolor-Pseudotsuga menziesii/Xerophyllum tenax*] (Jimerson 1993)
- ★82.200.28 White Fir - Douglas-fir - Bigleaf Maple [*Abies concolor-Pseudotsuga menziesii-Acer macrophyllum*] (Jimerson 1993)
- ★82.200.29 White Fir - Douglas-fir - Black Oak [*Abies concolor-Pseudotsuga menziesii-Quercus kelloggii*] (Jimerson 1993)
- ★82.200.30 White Fir - Douglas-fir - Canyon Live Oak / White-veined Shinleaf [*Abies concolor-Pseudotsuga menziesii-Quercus chrysolepis/Pyrola picta*] (Jimerson 1993)
- ★82.200.31 White Fir - Douglas-fir - Canyon Live Oak [*Abies concolor-Pseudotsuga menziesii-Quercus chrysolepis*] (Jimerson 1993)
- ★82.200.32 White Fir - Douglas-fir - Canyon Live Oak / White-flower Hawkweed-Grass [*Abies concolor-Pseudotsuga menziesii-Quercus chrysolepis/Hieracium albiflorum*-Grass] (Jimerson 1993)
- ★82.200.33 White Fir - Douglas-fir - Canyon Live Oak / Little Oregon-grape [*Abies concolor-Pseudotsuga menziesii-Quercus chrysolepis/Berberis nervosa*] (Jimerson 1993)
- ★82.200.34 White Fir - Douglas-fir - Chinquapin / Little Oregon-grape / Vanilla Leaf [*Abies concolor-Pseudotsuga menziesii-Chrysolepis chrysophylla/Berberis nervosa/Achlys triphylla*] (Jimerson 1993)
- 82.200.35 White Fir - Douglas-fir / Sadler Oak [*Abies concolor-Pseudotsuga menziesii/Quercus sadleriana*] (Jimerson 1993)
- 82.200.36 White Fir - Douglas-fir / Sadler Oak - Huckleberry Oak [*Abies concolor-Pseudotsuga menziesii/Quercus sadleriana-Quercus vaccinifolia*] (Jimerson 1993)
- 82.200.37 White Fir - Douglas-fir / Sadler Oak - Pinemat Manzanita [*Abies concolor-Pseudotsuga menziesii/Quercus sadleriana-Arctostaphylos nevadensis*] (Jimerson 1993)
- ★82.200.38 White Fir - Douglas-fir / Grass [*Abies concolor-Pseudostuga menziesii/Grass*] (Jimerson 1993)
- ★82.200.39 White Fir - Douglas-fir / Hazel [*Abies concolor-Pseudotsuga menziesii/Corylus cornuta*] (Jimerson 1993)
- 82.200.40 White Fir - Douglas-fir / Huckleberry Oak [*Abies concolor-Pseudotsuga menziesii/Quercus vaccinifolia*] (Jimerson 1993)
- ★82.200.41 White Fir - Douglas-fir / Yerba de Selva [*Abies concolor-Pseudotsuga menziesii/Whipplea modesta*] (Jimerson 1993)
- ★82.200.42 White Fir - Douglas-fir / Rhododendron - Sadler Oak [*Abies concolor-Pseudotsuga menziesii/Rhododendron spp.-Quercus sadleriana*] (Jimerson 1993)
- ★82.200.43 White Fir - Douglas-fir - Tanoak / Little Oregon-grape [*Abies concolor-Pseudotsuga menziesii-Lithocarpus densiflora/Berberis*

- nervosa]* (Jimerson 1993)
- ★82.200.44 White Fir - Douglas-fir / Thimbleberry [*Abies concolor-Pseudotsuga menziesii/Rubus parviflorus*] (Jimerson 1993)
- ★82.200.45 White Fir - Douglas-fir / Vine Maple [*Abies concolor-Pseudotsuga menziesii/Acer circinatum*] (Jimerson 1993)
- ★82.200.46 White Fir - Douglas-fir / Wild Rose / Twinflower [*Abies concolor-Pseudotsuga menziesii/Rosa gymnocarpa/Linnaea borealis*] (Jimerson 1993)
- ★82.200.47 White Fir - Incense-cedar / Creeping Snowberry [*Abies concolor-Calocedrus decurrens/Symphoricarpos mollis*] (Jimerson 1993)
- ★82.200.48 White Fir - Jeffrey Pine / California Fescue [*Abies concolor-Pinus jeffreyi/Festuca californica*] (Jimerson 1993)
- ★82.200.49 Douglas-fir / Vanilla Leaf [*Pseudotsuga menziesii/Achlys triphylla*] (Keeler-Wolf 1985a, 1987a, 1989b)
- ★82.200.50 Douglas-fir / Madrone [*Pseudotsuga menziesii/Arbutus menziesii*] (Laidlaw-Holmes 1981)
- ★82.200.51 Douglas-fir / Rattlesnake Plantain [*Pseudotsuga menziesii/Goodyera oblongifolia*] (Sawyer 1981a)
- 82.200.52 Douglas-fir / Huckleberry Oak [*Pseudotsuga menziesii/Quercus vaccinifolia*] (Sawyer *et al.* 1978)
- 82.200.53 Douglas-fir / Greenleaf Manzanita [*Pseudotsuga menziesii/Arctostaphylos patula*] (Sawyer & Stillman 1977)
- ★82.200.54 Douglas-fir / Prince's-pine [*Pseudotsuga menziesii/Chimaphila umbellata*] (Sawyer & Stillman 1977)
- ★82.200.55 Douglas-fir / Twinflower [*Pseudotsuga menziesii/Linnaea borealis*] (Sawyer & Stillman 1977)
- ★82.200.56 Douglas-fir / Hazel [*Pseudotsuga menziesii/Corylus cornuta*] (Simpson 1980)
- ★82.200.57 Douglas-fir / Inside-out Flower [*Pseudotsuga menziesii/Vancouveria planipetala*] (Simpson 1980)
- ★82.200.58 Douglas-fir / Rhododendron [*Pseudotsuga menziesii/Rhododendron spp.*] (Simpson 1980)
- ★82.200.59 Douglas-fir / Salal [*Pseudotsuga menziesii/Gaultheria shallon*] (Simpson 1980)
- ★82.200.60 Black Oak - Douglas-fir [*Quercus kelloggii-Pseudotsuga menziesii*] (Stuart *et al.* 1992)
- ★82.200.61 Douglas-fir [*Pseudotsuga menziesii*] (Stuart *et al.* 1992)
- ★82.200.62 Douglas-fir - Jeffrey Pine - Incense-cedar [*Pseudotsuga menziesii-Pinus jeffreyi-Calocedrus decurrens*] (Stuart *et al.* 1992)
- 82.200.63 Douglas-fir - White Alder / Himalaya Berry [*Pseudotsuga menziesii-Abies concolor/Rubus discolor*] (Stuart *et al.* 1992)
- ★82.200.64 Douglas-fir / Little Oregon-grape [*Pseudotsuga menziesii/Berberis nervosa*] (Taylor 1975a, b)

- ★82.200.65 Douglas-fir / Pacific Dogwood [*Pseudotsuga menziesii/Cornus nuttallii*] (Taylor & Teare 1979a)
- ★82.200.66 Douglas-fir - California Bay [*Pseudotsuga menziesii-Umbellularia californica*] (Wainwright & Barbour 1984)
- ★82.200.67 Coastal Douglas-fir-Western Hemlock Forest{82410}
  
- ★82.300.00 Bigcone Douglas-fir - Canyon Live Oak [*Pseudotsuga menziesii-Quercus chryssolepis*]{84150}
  
- ★82.400.00 Douglas-fir - Ponderosa Pine [*Pseudotsuga menziesii-Pinus ponderosa*]
- ★82.400.01 Black Oak - Douglas-fir - Bigleaf Maple [*Quercus kelloggii-Pseudotsuga menziesii-Acer macrophyllum*] (Jimerson 1993)
- ★82.400.02 Douglas-fir - Ponderosa Pine - Incense-cedar [*Pseudotsuga menziesii-Pinus ponderosa-Calocedrus decurrens*] (Stuart *et al.* 1992)
- ★82.400.03 Douglas-fir - Ponderosa Pine - Jeffrey Pine / One-sided Bluegrass [*Pseudotsuga menziesii-Pinus ponderosa-Pinus jeffreyi/Poa secunda*] (Smith 1994)
- ★82.400.04 Douglas-fir - Ponderosa Pine [*Pseudotsuga menziesii-Pinus ponderosa*] (Taylor & Teare 1979b)
  
- 82.500.00 Douglas-fir - Tanoak [*Pseudotsuga menziesii-Lithocarpus densiflora*]
- ★82.500.01 Douglas-fir - Tanoak / Prince's Pine [*Pseudotsuga menziesii-Lithocarpus densiflora/Chimaphila umbellata*] (Keeler-Wolf 1985a, 1987b, 1989b)
- ★82.500.02 Douglas-fir - Tanoak - Bigleaf Maple / Sword Fern [*Pseudotsuga menziesii-Lithocarpus densiflora-Acer macrophyllum/Polystichum munitum*] (Jimerson 1993)
- ★82.500.03 Douglas-fir - Tanoak - Black Oak / Wild Rose [*Pseudotsuga menziesii-Lithocarpus densiflora-Quercus kelloggii/Rosa gymnocarpa*] (Jimerson 1993)
- 82.500.04 Douglas-fir - Tanoak - California Bay / Poison-oak [*Pseudotsuga menziesii-Lithocarpus densiflora-umbellularia californica/Toxicodendron diversilobum*] (Jimerson 1993)
- 82.500.05 Douglas-fir - Tanoak - Canyon Live Oak - Black Oak /Poison-oak [*Pseudotsuga menziesii-Lithocarpus densiflora-Quercus chryssolepis-Quercus kelloggii/Toxicodendron diversilobum*] (Jimerson 1993)
- 82.500.06 Douglas-fir - Tanoak - Canyon Live Oak / Little Oregon-grape - Salal [*Pseudotsuga menziesii-Lithocarpus densiflora-Quercus chryssolepis/Berberis nervosa-Gaultheria shallon*] (Jimerson 1993)
  
- ★82.500.07 Douglas-fir - Tanoak - Canyon Live Oak / Little Oregon-grape [*Pseudotsuga menziesii-Lithocarpus densiflora/Berberis nervosa*] (Jimerson 1993)

- ★82.500.08 Douglas-fir - Tanoak - Canyon Live Oak / Black Huckleberry [*Pseudotsuga menziesii-Lithocarpus densiflora-Quercus chryssolepis/Vaccinium ovatum*] (Jimerson 1993)
- ★82.500.09 Douglas-fir - Tanoak - Canyon Live Oak / Black Huckleberry - Salal [*Pseudotsuga menziesii-Lithocarpus densiflora-Quercus chryssolepis/Vaccinium ovatum-Gaultheria shallon*] (Jimerson 1993)
- 82.500.10 Douglas-fir - Tanoak - Canyon Live Oak / Poison-oak [*Pseudotsuga menziesii-Lithocarpus densiflora-Quercus chryssolepis/Toxicodendron diversilobum*] (Jimerson 1993)
- 82.500.11 Douglas-fir - Tanoak - Canyon Live Oak / Rockpile [*Pseudotsuga menziesii-Lithocarpus densiflora-Quercus chryssolepis/Rockpile*] (Jimerson 1993)
- 82.500.12 Douglas-fir - Tanoak - Chinquapin / Bracken [*Pseudotsuga menziesii-Lithocarpus densiflora-Chrysolepis chrysophylla/Pteridium aquilinum*] (Jimerson 1993)
- ★82.500.13 Douglas-fir - Tanoak - Chinquapin / Little Oregon-grape [*Pseudotsuga menziesii-Lithocarpus densiflora-Chrysolepis chrysophylla/Berberis nervosa*] (Jimerson 1993)
- ★82.500.14 Douglas-fir - Tanoak - Chinquapin / Rhododendron / Beargrass [*Pseudotsuga menziesii-Lithocarpus densiflora-Chrysolepis chrysophylla/Rhododendron spp./Xerophyllum tenax*] (Jimerson 1993)
- ★82.500.15 Douglas-fir - Tanoak - Chinquapin / Rhododendron - Salal [*Pseudotsuga menziesii-Lithocarpus densiflora-Chrysolepis chrysophylla/Rhododendron spp.-Gaultheria shallon*] (Jimerson 1993)
- ★82.500.16 Douglas fir - Tanoak - Chinquapin / Salal [*Pseudotsuga menziesii-Lithocarpus densiflora-Chrysolepis chrysophylla/Gaultheria shallon*] (Jimerson 1993)
- ★82.500.17 Douglas-fir - Tanoak / Little Oregon-grape [*Pseudotsuga menziesii-Lithocarpus densiflora/Berberis nervosa*] (Thornburgh 1987, Jimerson 1993)
- ★82.500.18 Douglas-fir - Tanoak / Little Oregon-grape - Salal [*Pseudotsuga menziesii-Lithocarpus densiflora/Berberis nervosa-Gaultheria shallon*] (Jimerson 1993)
- ★82.500.19 Douglas-fir - Tanoak / Black Huckleberry [*Pseudotsuga menziesii-Lithocarpus densiflora/Vaccinium ovatum*] (Jimerson 1993)
- ★82.500.20 Douglas-fir - Tanoak / Black Huckleberry - Salal [*Pseudotsuga menziesii-Lithocarpus densiflora/Vaccinium ovatum-Gaultheria shallon*] (Jimerson 1993)
- ★82.500.21 Douglas-fir - Tanoak / Hazel [*Pseudotsuga menziesii-Lithocarpus densiflora/Corylus cornuta*] (Jimerson 1993)
- ★82.500.22 Douglas-fir - Tanoak - Incense-cedar / California Fescue [*Pseudotsuga*

- menziesii*-*Lithocarpus densiflora*-*Calocedrus decurrens*/*Festuca californica*] (Jimerson 1993)
- ★82.500.23 Douglas-fir - Tanoak / Poison-oak - Hairy Honeysuckle [*Pseudotsuga menziesii*-*Lithocarpus densiflora*/*Toxicodendron diversilobum*-*Lonicera hispidula*] (Jimerson 1993)
- ★82.500.24 Douglas-fir - Tanoak - Port Orford-cedar - California Bay /Black Huckleberry [*Pseudotsuga menziesii*-*Lithocarpus densiflora*-*Chamaecyparis lawsoniana*-*Umbellularia californica*/*Vaccinium ovatum*] (Jimerson 1993)
- ★82.500.25 Douglas-fir - Tanoak - Port Orford-cedar / Little Oregon-grape / Twinflower [*Pseudotsuga menziesii*-*Lithocarpus densiflora*-*Chamaecyparis lawsoniana*/*Berberis nervosa*/*Linnaea borealis*] (Jimerson 1993)
- ★82.500.26 Douglas-fir - Tanoak - Port Orford-cedar / Black Huckleberry [*Pseudotsuga menziesii*-*Lithocarpus densiflora*-*Chamaecyparis lawsoniana*/*Vaccinium ovatum*] (Jimerson 1993)
- ★82.500.27 Douglas-fir - Tanoak - Port Orford-cedar / Black Huckleberry - Western Azalea [*Pseudotsuga menziesii*-*Lithocarpus densiflora*-*Chamaecyparis lawsoniana*/*Vaccinium ovatum*-*Rhododendron occidentalis*] (Jimerson 1993)
- ★82.500.28 Douglas-fir - Tanoak - Port Orford-cedar / Red Huckleberry [*Pseudotsuga menziesii*-*Lithocarpus densiflora*-*Chamaecyparis lawsoniana*/*Vaccinium parvifolium*] (Jimerson 1993)
- ★82.500.29 Douglas-fir - Tanoak - Port Orford-cedar / Salal [*Pseudotsuga menziesii*-*Lithocarpus densiflora*-*Chamaecyparis lawsoniana*/*Gaultheria shallon*] (Jimerson 1993)
- ★82.500.30 Douglas-fir - Tanoak - Port Orford-cedar / Vine Maple [*Pseudotsuga menziesii*-*Lithocarpus densiflora*-*Chamaecyparis lawsoniana*/*Acer circinatum*] (Jimerson 1993)
- ★82.500.31 Douglas-fir - Tanoak - Port Orford-cedar - White Alder /Riparian [*Pseudotsuga menziesii*-*Lithocarpus densiflora*-*Chamaecyparis lawsoniana*-*Alnus rhombifolia*/Riparian] (Jimerson 1993)
- ★82.500.32 Douglas-fir - Tanoak / Rhododendron - Black Huckleberry [*Pseudotsuga menziesii*-*Lithocarpus densiflora*/*Rhododendron* spp.-*Vaccinium ovatum*] (Jimerson 1993)
- ★82.500.33 Douglas-fir - Tanoak / Rhododendron - Huckleberry Oak [*Pseudotsuga menziesii*-*Lithocarpus densiflora*/*Rhododendron* spp.-*Quercus vaccinifolia*] (Jimerson 1993)
- ★82.500.34 Douglas-fir - Tanoak / Rhododendron - Salal [*Pseudotsuga menziesii*-*Lithocarpus densiflora*/*Rhododenron* spp.-*Gaultheria shallon*] (Jimerson 1993)
- ★82.500.35 Douglas-fir - Tanoak / Salal [*Pseudotsuga menziesii*-*Lithocarpus densiflora*/*Gaultheria shallon*] (Jimerson 1993)

- ★82.500.36 Douglas-fir - Tanoak / Vine Maple [*Pseudotsuga menziesii*-*Lithocarpus densiflora/Acer circinatum*] (Jimerson 1993)
- ★82.500.37 Douglas-fir - Tanoak / Vine Maple - Salal [*Pseudotsuga menziesii*-*Lithocarpus densiflora/Acer circinatum-Gaultheria shallon*] (Jimerson 1993)
- ★82.500.38 Douglas-fir - Tanoak / Pacific Yew [*Pseudotsuga menziesii*-*Lithocarpus densiflora/Taxus brevifolia*] (Mize 1973)
- ★82.500.39 Douglas-fir - Tanoak - Sugar Pine [*Pseudotsuga menziesii*-*Lithocarpus densiflora-Pinus lambertiana*] (1973)
- ★82.500.40 Douglas-fir - Tanoak / Vanilla Leaf [*Pseudotsuga menziesii*-*Lithocarpus densiflora/Achlys triphylla*] (Mize 1973)
- ★82.500.41 Douglas-fir - Tanoak / Black Huckleberry [*Pseudotsuga menziesii*-*Lithocarpus densiflora/Vaccinium ovatum*] (Simpson 1980)
- ★82.500.42 Douglas-fir - Tanoak / Poison-oak [*Pseudotsuga menziesii*-*Lithocarpus densiflora/Toxicodendron diversilobum*] (Thornburgh 1987)

83.000.00 Spruce [*Picea* spp.]

- ★83.100.00 Engelmann Spruce [*Picea engelmannii*]
- ★83.200.00 Sitka Spruce [*Picea sitchensis*]
  - ★83.200.01 Sitka Spruce / False Lily-of-the valley [*Picea sitchensis-Maianthemum dilatatum*] (Imper & Sawyer 1987)
  - ★83.200.02 Sitka Spruce / Salmonberry [*Picea sitchensis/Rubus spectabilis*] (Imper & Sawyer 1987)
  - ★83.200.03 Sitka Spruce / Sword Fern [*Picea sitchensis/Polystichum munitum*] (Imper & Sawyer 1987)
  - ★83.200.04 Sitka Spruce - Western Hemlock [*Picea sitchensis/Tsuga heterophylla*] (Westman & Whittaker 1975)
  - ★83.200.05 Sitka Spruce Forest{82110}

★83.300.00 Brewer Spruce

84.000.00 Hemlock [*Tsuga* spp.]

- 84.100.00 Mountain Hemlock [*Tsuga mertensiana*]
  - 84.100.01 Mountain Hemlock / Cascade Heather [*Tsuga mertensiana* /*Phyllodoce empetrifolmis*] (Imper 1988a)
  - 84.100.02 Mountain Hemlock / Parry Rush [*Tsuga mertensiana/Juncus parryi*] (Imper 1988a)
  - 84.100.03 Mountain Hemlock / Sadler Oak [*Tsuga mertensiana/Quercus*

- 84.100.04      *sadleriana*] (Jimerson 1993)  
 84.100.05      Mountain Hemlock [ *Tsuga mertensiana*] (Potter 1994)  
 84.100.05      Moutain Hemlock / Steep [ *Tsuga mertensiana*] (Potter 1994)  
 84.100.06      Mountain Hemlock / Dwarf Bilberry [ *Tsuga mertensiana/Vaccinium caespitosum*] (Sawyer & Thornburgh 1977)  
 84.100.07      Mountain Hemlock / Huckleberry Oak [ *Tsuga mertensiana/Quercus vaccinifolia*] (Sawyer & Thornburgh 1977)  
 84.100.08      Mountain Hemlock / White-veined Shinleaf [ *Tsuga mertensiana/Pyrola picta*] (Sawyer & Thornburgh 1977)  
 84.100.09      Mountain Hemlock / Heartleaf Arnica [ *Tsuga mertensiana/Arnica cordifolia*] (Taylor 1984)

★84.200.00 Western Hemlock [ *Tsuga heterophylla*] {82200}

85.000.00    *Calocedrus*

- ★85.100.00 Incense-cedar [ *Calocedrus decurrens*]  
 ★85.100.01 Incense-cedar / Twayblane [ *Calocedrus decurrens/Listera convallarioides*] (Muldavin 1982)  
 ★85.100.02 Incense-cedar - Douglas-fir [ *Calocedrus decurrens-Pseudotsuga menziesii*] (Stuart et al. 1992)

86.000.00    Redwood [ *Sequoia sempervirens*]

- ★86.100.00 Redwood [ *Sequoia sempervirens*]  
 ★86.100.01 Redwood - Bigleaf Maple / California Polypody / Gamboa [ *Sequoia sempervirens-Acer macrophylla/Polypodium californicum/Gamboa*] (Borchert et al. 1988)  
 ★86.100.02 Redwood / Bracken - Chain Fern / Streamsides [ *Sequoia sempervirens/Pteridium aquilinum-Woodwardia fimbriata/Streamsides*] (Borchert et al. 1988)  
 ★86.100.03 Redwood / Bracken - Trillium / Gamboa - Sur [ *Sequoia sempervirens/Pteridium aquilinum-Trillium ovatum/Gamboa-Sur*] (Borchert et al. 1988)  
 ★86.100.04 Redwood / Gamboa - Sur [ *Sequoia sempervirens/Gamboa-Sur*] (Borchert et al. 1988)  
 ★86.100.05 Redwood / Man Root - Common Vetch / Gamboa - Sur [ *Sequoia sempervirens/Marah fabaceus-Vicia angustifolia/Gamboa-Sur*] (Borchert et al. 1988)  
 ★86.100.06 Redwood - Tanoak / Round-fruited Sedge - Douglas Iris /Gamboa [ *Sequoia sempervirens-Lithocarpus densiflora/Carex globosa-Iris douglasiana*] (Borchert et al. 1988)

- ★86.100.07 Redwood / Deer Fern [*Sequoia sempervirens/Blechnum spicant* (Lenihan 1990)]
- ★86.100.08 Redwood / Little Oregon-grape [*Sequoia sempervirens/Berberis nervosa*] (Lenihan 1990)
- ★86.100.09 Redwood / Madrone [*Sequoia sempervirens/Arbutus menziesii*] (Lenihan 1990)
- ★86.100.10 Redwood - Douglas-fir / Madrone [*Sequoia sempervirens-Pseudotsuga menziesii/Arbutus menziesii*] (Matthews 1986a, 1986b)
- ★86.100.11 Redwood - Douglas-fir / Salal [*Sequoia sempervirens-Pseudotsuga menziesii/Gaultheria shallon*] (Matthews 1986a, 1986b)
- ★86.100.12 Redwood - Douglas-fir / Black Huckleberry [*Sequoia sempervirens-Pseudotsuga menziesii/Vaccinium ovatum*] (Matthews 1986a, 1986b)
- ★86.100.13 Redwood / Redwood Oxalis [*Sequoia sempervirens/Oxalis oregana*] (Matthews 1986a, 1986b)
- ★86.100.14 North Coast Alluvial Redwood Forest{61120}

★86.200.00 Giant Sequoia [*Sequoiadendron giganteum*]{84250}

87.000.00 Pine [*Pinus* spp.]

- 87.010.00 Ponderosa Pine [*Pinus ponderosa*]
- ★87.010.01 Ponderosa Pine / Antelope Bitterbrush / Bolander Bedstraw [*Pinus ponderosa/Purshia tridentata* var. *tridentata*] (Fites 1993)
- ★87.010.02 Ponderosa Pine / Mountain Misery [*Pinus ponderosa/Chamaebatia foliolosa*] (Taylor & Randall 1977, Fites 1993)
- ★87.010.03 Ponderosa Pine / Greenleaf Manzanita - Mountain Misery [*Pinus ponderosa/Arctostaphylos patula-Chamaebatia foliolosa*] (Fites 1993)
- ★87.010.04 Ponderosa Pine / Big Sagebrush [*Pinus ponderosa/Artemisia tridentata*] (Keeler-Wolf 1984c)
- ★87.010.05 Ponderosa Pine / Antelope Bitterbrush [*Pinus ponderosa/Purshia tridentata* var. *tridentata*] (Keeler-Wolf 1984c, Vora 1988)
- ★87.010.06 Ponderosa Pine / California Brome [*Pinus ponderosa/Bromus carinatus*] (Keeler-Wolf 1984c)
- ★87.010.07 Ponderosa Pine / Shrubby Bedstraw [*Pinus ponderosa/Galium angustifolium*] (Keeler-Wolf 1986e, 1988e)
- ★87.010.08 Ponderosa Pine/ Mahala Carpet [*Pinus ponderosa/Ceanothus prostratus*] (Sawyer & Thornburgh 1977)
- ★87.010.09 Ponderosa Pine / Wedgeleaf Ceanothus [*Pinus ponderosa/Ceanothus cuneatus*] (Simpson 1980)
- ★87.010.10 Ponderosa Pine / Antelope Bush / Arrowleaf Balsam Root [*Pinus ponderosa/Purshia tridentata* var. *tridentata/Balsamorhiza sagittata*] (Smith 1994)

- ★87.010.11 Ponderosa Pine / Antelope Bitterbrush - Choke Cherry /Orcutt Brome [*Pinus ponderosa/Purshia tridentata* var. *tridentata*] (Smith 1994)
- ★87.010.12 Ponderosa Pine / Antelope Bitterbrush / Columbia Needlegrass / Pumice [*Pinus ponderosa/Purshia tridentata* var. *tridentata/Stipa nelsonii/Pumice*] (Smith 1994)
- ★87.010.13 Ponderosa Pine / Antelope Bitterbrush - Greenleaf Manzanita / Columbia Needlegrass [*Pinus ponderosa/Purshia tridentata* var. *tridentata-Arctostaphylos patula/Stipa nelsonii*] (Smith 1994)
- ★87.010.14 Ponderosa Pine / Antelope Bitterbrush - Tobacco Brush [*Pinus ponderosa/Purshia tridentata* var. *tridentata-Ceanothus velutinus*] (Smith 1994)
- ★87.010.15 Ponderosa Pine / Antelope Bitterbrush / Tower Butterweed/ Granite [*Pinus ponderosa/Purshia tridentata* var. *tridentata/Senecio integerrimus/Granite*](Smith 1994)
- ★87.010.16 Ponderosa Pine / Antelope Bitterbrush - Wax Currant /Orcutt Brome [*Pinus ponderosa/Purshia tridentata* var.*tridentata-Ribes cereum/Bromus orcuttii*] (Smith 1994)
- ★87.010.17 Ponderosa Pine - Black Oak / Curlleaf Mountain-mahogany [*Pinus ponderosa/quercus kelloggii/Cercocarpus ledifolius*] (Smith 1994)
- ★87.010.18 Ponderosa Pine / Columbia Needlegrass [*Pinus ponderosa/Stipa nelsonii*] (Smith 1994)
- ★87.010.19 Ponderosa Pine / Curlleaf Mountain-mahogany - Antelope Bitterbrush / Idaho Fescue [*Pinus ponderosa/Cercocarpus ledifolius-Purshia tridentata* var. *tridenata/Festuca idahoensis*] (Smith 1994)
- ★87.010.20 Ponderosa Pine / Curlleaf Mountain-mahogany / Blue Wheatgrass [*Pinus ponderosa/Cercocarpus ledifolius/Pseudoroegneria spicata*] (Smith 1994)
- ★87.010.21 Ponderosa Pine - Douglas-fir / Antelope Bitterbrush /Mule's Ears [*Pinus ponderosa-Pseudotsuga menziesii/Purshia tridentata* var. *tridentata/Wyethia mollis*] (Smith 1994)
- ★87.010.22 Ponderosa Pine - Interior Live Oak [*Pinus ponderosa-Quercus wislizenii*] (Smith 1994)
- ★87.010.23 Ponderosa Pine - Lodgepole Pine / Service Berry [*Pinus ponderosa-Pinus contorta* ssp. *murrayana/Amelanchier alnifolia*] (Smith 1994)
- ★87.010.24 Ponderosa Pine / Mountain Big Sagebrush / Idaho Fescue [*Pinus ponderosa/Artemisia tridentata* var. *vaseyanana/Festuca idahoensis*] (Smith 1994)
- ★87.010.25 Ponderosa Pine / Mountain Big Sagebrush - Antelope Bitterbrush [*Pinus ponderosa/Artemisia tridentata* var. *vaseyanana-Purshia tridentata* var. *tridentata*] (Smith 1994)
- ★87.010.26 Ponderosa Pine / Service Berry - Choke Cherry [*Pinus ponderosa/Amelanchier alnifolia-Prunus virginiana*] (Smith 1994)

- ★87.010.27 Ponderosa Pine / Service Berry - Creeping Oregon-grape /Heartleaf Arnica [*Pinus ponderosa/Amelanchier alnifolia-Berberis repens/Arnica cordifolia*] (Smith 1994)
- ★87.010.28 Ponderosa Pine / Tobacco Bush / Columbia Needlegrass [*Pinus ponderosa/Ceanothus velutinus/Stipa nelsonii*] (Smith 1994)
- ★87.010.29 Ponderosa Pine / Desert Snowberry [*Pinus ponderosa/Symporicarpos longiflorus*] (Vora 1988)
- ★87.010.30 Ponderosa Pine - Canyon Live Oak [*Pinus ponderosa-Quercus chrysolepis*] (Waddell 1982)
- ★87.010.31 Maritime Coast Range Ponderosa Pine Forest{84132}
- ★87.010.32 Ponderosa Dune Forest{84221}
- ★87.010.33 Westside Ponderosa Pine Forest{84210}
- ★87.010.34 Eastside Ponderosa Pine Forest{84220}

- 87.020.00 Jeffrey Pine [*Pinus jeffreyi*]
- 87.020.01 Jeffrey Pine / Sadler Oak / Bear-grass [*Pinus jeffreyi/Quercus sadleriana/Xerophyllum tenax*] (Jimerson 1993)
  - ★87.020.02 Jeffrey Pine - Douglas-fir / Huckleberry Oak / California Fescue [*Pinus jeffreyi-Pseudotsuga menziesii/Quercus vaccinifolia/Festuca californica*] (Jimerson 1993)
  - ★87.020.03 Jeffrey Pine / Idaho Fescue [*Pinus jeffreyi/Festuca idahoensis*] (Duebendorfer 1987, Jimerson 1993)
  - 87.020.04 Jeffrey Pine - Incense-cedar / Huckleberry Oak [*Pinus jeffreyi-Calocedrus decurrens/Quercus vaccinifolia*] (Jimerson 1993)
  - 87.020.05 Jeffrey Pine - Incense-cedar / Huckleberry Oak / Bear-grass [*Pinus jeffreyi-Calocedrus decurrens/Quercus vaccinifolia/Xerophyllum tenax*] (Jimerson 1993)
  - ★87.020.06 Jeffrey Pine - Western White Pine / Del Norte Iris [*Pinus jeffreyi-Pinus monticola/Iris innominata*] (Jimerson 1993)
  - 87.020.07 Jeffrey Pine [*Pinus jeffreyi*] (Potter 1994)
  - 87.020.08 Jeffrey Pine / Huckleberry Oak [*Pinus jeffreyi/Quercus vaccinifolia*] (Potter 1994)
  - 87.020.09 Jeffrey Pine / Greenleaf Manzanita [*Pinus jeffreyi/Arctostaphylos patula*] (Potter 1994)
  - 87.020.10 Jeffrey Pine / Mountain Whitethorn [*Pinus jeffreyi/Ceanothus cordulatus*] (Potter 1994)
  - 87.020.11 Jeffrey Pine / Tailed Lupine [*Pinus jeffreyi/Lupinus caudatus*] (Riegel et al. 1990)
  - ★87.020.12 Jeffrey Pine / Antelope Bitterbrush/ Mule's Ears [*Pinus jeffreyi/Purshia tridentata* var. *tridentata/Wyethia mollis*] (Smith 1994)
  - ★87.020.13 Jeffrey Pine / Antelope Bitterbrush - Curlleaf Mountain-mahogany / Western Needlegrass [*Pinus jeffreyi/Purshia tridentata* var.

*tridentata/Cercocarpus ledifolius/Stipa occidentalis]* (Smith 1994)

- ★87.020.14 Jeffrey Pine / Antelope Bitterbrush - Desert Snowberry / Wheeler Bluegrass [*Pinus jeffreyi/Purshia tridentata* var. *tridentata*-*Symporicarpos longiflorus/Poa wheeleri*] (Smith 1994)
- ★87.020.15 Jeffrey Pine - Black Oak / One-sided Bluegrass [*Pinus jeffreyi-Quercus kelloggii/Poa secunda*] (Smith 1994)
- ★87.020.16 Jeffrey Pine - Black Oak / Basket Bush [*Pinus jeffreyi-Quercus kelloggii/Rhus trilobata*] (Smith 1994)
- ★87.020.17 Jeffrey Pine / Curlleaf Mountain-mahogany [*Pinus jeffreyi/Cercocarpus ledifolius*] (Smith 1994)
- ★87.020.18 Jeffrey Pine / Desert Snowberry / Wheeler Bluegrass [*Pinus jeffreyi/Symporicarpos longiflorus/Poa wheeleri*] (Smith 1994)
- ★87.020.19 Jeffrey Pine / Mountain Big Sagebrush / Idaho Fescue [*Pinus jeffreyi/Artemisia tridentata* var. *vaseyana/Festuca idahoensis*] (Smith 1994)
- ★87.020.20 Jeffrey Pine / Bush Chinquapin [*Pinus jeffreyi/Chrysolepis sempervirens*] (Talley 1978)
- ★87.020.21 Jeffrey Pine / Antelope Bitterbrush [*Pinus jeffreyi/Purshia tridentata* var. *tridentata*] (Taylor 1980)
- ★87.020.22 Jeffrey Pine / Serpentine-Haplappus [*Pinus jeffreyi/Ericameria ophitidis*] (Taylor & Teare 1979)
- ★87.020.23 Jeffrey Pine / Tufted Reedgrass [*Pinus jeffreyi/Calamagrostis koelerioides*] (Taylor & Teare 1979b)
- 87.020.24 Jeffrey Pine / Pinemat Manzanita [*Pinus jeffreyi/Arctostaphylos nevadensis*] (Waddell 1982)

★87.030.00 Parry Pinyon [*Pinus quadrifolia*]

87.040.00 Singleleaf Pinyon [*Pinus monophylla*]  
87.040.01 Mojavean Pinyon Woodland{72210}

★87.050.00 Twoleaf Pinyon Unique Stands [*Pinus edulis*]

★87.060.00 Beach Pine [*Pinus contorta* ssp. *contorta*]  
★87.060.01 Beach Pine Forest{83110}

★87.070.00 Bishop Pine [*Pinus muricata*]

★87.071.00 Northern Bishop Pine Forest [*Pinus* spp.]{83121}  
★87.071.01 Bishop Pine / Bear-grass [*Pinus muricata/Xerophyllum tenax*] (Westman & Whittaker 1975)

★87.071.02 Bishop Pine - Bolander Pine / Labrador-tea [*Pinus muricata-Pinus contorta* ssp. *bolanderi*] (Westman and Whittaker 1975)

★87.071.03 Bishop Pine - Bolander Pine / Rayless Arnica [*Pinus muricata-Pinus contorta* ssp. *bolanderi*/*Arnica discoidea*] (Westman & Whittaker 1975)

★87.071.04 Bishop Pine - Douglas-fir [*Pinus muricata-Pseudotsuga menziesii*] (Westman & Whittaker 1975)

★87.072.00 Southern Bishop Pine Forest [*Pinus* spp.] {83122}

87.080.00 Lodgepole Pine [*Pinus contorta* ssp. *murryana*] {86100}

87.080.01 Lodgepole Pine [*Pinus contorta* ssp. *murryana*] (Potter 1994)

87.080.02 Lodgepole Pine / Big Sagebrush [*Pinus contorta* ssp. *murryana*/*Artemesia tridentata*] (Potter 1994)

87.080.03 Lodgepole Pine / Gray Lovage [*Pinus contorta* ssp. *murryana*/*Ligusticum grayi*] (Potter 1994)

87.080.04 Lodgepole Pine / Open [*Pinus contorta* ssp. *murryana*/Open] (Potter 1994)

87.080.05 Lodgepole Pine / Pussypaws [*Pinus contorta* ssp. *murryana*/*Calyptidium monosperma*] (Taylor 1980)

87.080.06 Lodgepole Pine / Ross Sedge [*Pinus contorta* ssp. *murryana*/*Carex rossii*] (Taylor 1984)

87.080.07 Lodgepole Pine / Fendler Meadow-rue [*Pinus contorta* ssp. *murryana*/*Thalictrum fendleri*] (Taylor 1984)

87.080.08 Lodgepole Pine / Labrador-Tea [*Pinus contorta* ssp. *murryana*/*Ledum glandulosum*] (Taylor 1984)

87.090.00 Coulter Pine [*Pinus coulteri*] {84140}

87.100.00 Knobcone Pine [*Pinus attenuata*] {83210}

87.100.01 Knobcone Pine / Hairy Manzanita [*Pinus attenuata*/*Arctostaphylos columbiana*] (Imper 1991a)

87.100.02 Knobcone Pine / Greenleaf Manzanita [*Pinus attenuata*/*Arctostaphylos patula*] (Imper 1991b)

87.100.03 Knobcone Pine / Huckleberry Oak [*Pinus attenuata*/*Quercus vaccinifolia*] (Taylor & Teare 1979a)

★87.110.00 Monterey Pine [*Pinus radiata*] {83130}

★87.120.00 Washoe Pine [*Pinus washoensis*] {85220}

★87.120.01 Washoe Pine / Tailed Lupine [*Pinus washoensis*/*Lupinus caudatus*]

- (Riegel *et al.* 1990)\*
- ★87.120.02 Washoe Pine / Desert Snowberry / Sticky Starwort [*Pinus washoensis/Symphoricarpos longiflorus/Pseudostellaria jamesiana*] (Smith 1994)
- ★87.120.03 Washoe Pine / Pinemat Manzanita [*Pinus washoensis/Arctostaphylos nevadensis*] (Smith 1994)
- 87.130.00 Foothill Pine [*Pinus sabiniana*]
- 87.130.01 Serpentine Digger Pine Chaparral Woodland{71321}
  - 87.130.02 Non-Serpentine Digger Pine Chaparral Woodland{71322}
  - 87.130.03 Digger Pine-Oak Woodland{71410}
- ★87.140.00 Bristlecone Pine [*Pinus longaeva*]{86400}
- ★87.140.01 Bristlecone Pine [*Pinus longaeva*] (Taylor 1979)
  - ★87.140.02 Bristlecone Pine / Littleleaf Mountain-mahogany [*Pinus longaeva/Cercocarpus intricatus*] (Taylor 1979)
- 87.150.00 Foxtail Pine [*Pinus balfouriana*]{86300}
- 87.150.01 Sierra Foxtail Pine Forest [*Pinus* spp.] (Ball 1976)
  - 87.150.02 Foxtail Pine Forest / Drummond Windflower [*Pinus balfouriana/Anemone drummondii*] (Whipple & Cope 1979)
- 87.160.00 Limber Pine [*Pinus flexilis*]{86700}
- ★87.160.01 Limber Pine / Curlleaf Mountain-mahogany [*Pinus flexilis/Cercocarpus ledifolius*] (Taylor 1979)
- 87.170.00 Western White Pine [*Pinus monticola*]
- ★87.170.01 Western White Pine / Bush Tanoak [*Pinus monticola/Lithocarpus densiflora* var. *echinoides*] (Duebendorfer 1987)
  - ★87.170.02 Western White Pine / Ocean Spray [*Pinus monticola/Holodiscus discolor*] (Sawyer & Thornburgh 1977)
  - ★87.170.03 Pine / Bear-grass [*Pinus* spp./*Xerophyllum tenax*] (Simpson 1980)
  - ★87.170.04 Western White Pine / Angelica [*Pinus monticola/Angelica arguta*] (Whipple & Cope 1979)
  - ★87.170.05 Ultramafic White Pine Forest{84160}
- 87.180.00 Whitebark Pine [*Pinus albicaulis*]{86600}
- 87.180.01 Whitebark Pine / California Needlegrass [*Pinus albicaulis/Stipa californica*] (Riegel *et al.* 1990)
  - 87.180.02 Whitebark Pine / Slender Penstemon [*Pinus albicaulis/Penstemon gracilentus*] (Reigel *et al.* 1990)
  - 87.180.03 Whitebark Pine / Woody Sandwort [*Pinus albicaulis/Arenaria*

- 87.180.04      *pumicola*] (Reigel *et al.* 1990)  
 Whitebark Pine / Ocean Spray [*Pinus albicaulis/Holodiscus discolor*]  
 (Sawyer & Thornburgh 1977)
- 87.180.05      Whitebark Pine / Wheeler Bluegrass [*Pinus albicaulis/Poa wheeleri*]  
 (Taylor 1984)
- 87.180.06      Whitebark Pine / Davidson Penstemon [*Pinus albicaulis/Penstemon davidsonii*] (Taylor 1984)

★87.190.00 Torrey Pine Unique Stands [*Pinus torreyana*]{83140}

- 87.200.00      Jeffrey Pine - Ponderosa Pine [*Pinus jeffreyi-Pinus ponderosa*]  
 ★87.200.01 Jeffrey Pine - Ponderosa Pine / Arrowleaf Balsam Root [*Pinus jeffreyi-Pinus ponderosa/Balsamorhiza sagittata*] (Smith 1994)  
 ★87.200.02 Jeffrey Pine - Ponderosa Pine / Antelope Bitterbrush /Idaho Fescue [*Pinus jeffreyi-Pinus ponderosa/Purshia tridentata* var. *tridentata*/*Festuca idahoensis*] (Smith 1994)  
 ★87.200.03 Jeffrey Pine - Ponderosa Pine / Antelope Bitterbrush /Idaho Fescue / Granite [*Pinus jeffreyi-Pinus ponderosa/Purshia tridentata* var. *tridentata*/*Festuca idahoensis/Granite*] (Smith 1994)  
 ★87.200.04 Jeffrey Pine - Ponderosa Pine / Modoc Coffeeberry / One-sided Bluegrass [*Pinus jeffreyi-Pinus ponderosa/Rhamnus rubra/Poa secunda*] (Smith 1994)  
 ★87.200.05 Jeffrey Pine - Ponderosa Pine / Huckleberry Oak [*Pinus jeffreyi-Pinus ponderosa/Quercus vaccinifolia*] (Smith 1994)  
 ★87.200.06 Jeffrey Pine - Ponderosa Pine / Columbia Needlegrass / Oregon Ash [*Pinus jeffreyi-Pinus ponderosa/Stipa nelsonii/Fraxinus latifolia*] (Smith 1994)  
 ★87.200.07 Jeffrey Pine - Ponderosa Pine / Creeping Snowberry /Mule's Ears [*Pinus jeffreyi-Pinus ponderosa/Symphoricarpos mollis/Wyethia mollis*] (Smith 1994)

87.210.00      Coulter Pine - Canyon Live Oak [*Pinus coulteri-Quercus chrysolepis*]

- 87.220.00      Mixed Subalpine Forest [*Pinus* spp.]  
 87.220.01      Whitebark Pine Mountain Hemlock Forest{86210}

★87.230.00 San Benito Unique Stands

88.000.00      Firs [*Abies* spp.]

- ★88.100.00 Grand Fir [*Abies grandis*]  
 ★88.100.01 Grand Fir Forest{82120}

- 88.200.00 Red Fir [*Abies magnifica* var. *magnifica*] {85310}
- 88.200.01 Shasta Fir / Sadler Oak [*Abies magnifica* var. *shastensis*/*Quercus sadleriana*] (Imper 1988a)
- ★88.200.02 Shasta Fir / Thinleaf Huckleberry [*Abies magnifica* var. *shastensis*/*Vaccinium membranaceum*] (Imper 1988a)
- 88.200.03 Shasta Fir / Vanilla Leaf [*Abies magnifica* var. *shastensis*/*Achlys triphylla*] (Imper 1988a)
- 88.200.04 Shasta Fir / Pinemat Manzanita [*Abies magnifica* var. *shastensis*/*Arctostaphylos nevadensis*] (Imper 1988b)
- 88.200.05 Shasta Fir / Prince's-pine [*Abies magnifica* var. *shastensis*/*Chimaphila umbellata*] (Sawyer & Thornburgh 1977, Imper 1988b)
- 88.200.06 Shasta Fir / Slender Penstemon [*Abies magnifica* var. *shastensis*/*Penstemon gracilens*] (Imper 1988b)
- ★88.200.07 Port Orford-cedar - Red Fir / Sadler Oak - Thinleaf Huckleberry [*Chamaecyparis lawsoniana*-*Abies magnifica* var. *magnifica*/*Quercus sadleriana*-*Vaccinium membranaceum*] (Jimerson 1993)
- 88.200.08 Red Fir / Sadler Oak [*Abies magnifica* var. *magnifica*/*Quercus sadleriana*] (Jimerson 1993)
- 88.200.09 Red Fir / Sadler Oak - Pinemat Manzanita [*Abies magnifica* var. *magnifica*/*Quercus sadleriana*-*Arctostaphylos nevadensis*] (Jimerson 1993)
- ★88.200.10 Red Fir - Incense-cedar [*Abies magnifica* var. *magnifica*-*Calocedrus decurrens*] (Jimerson 1993)
- 88.200.11 Red Fir / One-sided Shinleaf [*Abies magnifica* var. *magnifica*/*Orthilia secunda*] (Jimerson 1993)
- ★88.200.12 Red Fir / Rhododendron [*Abies magnifica* var. *magnifica* /*Rhododendron* spp.] (Jimerson 1993)
- 88.200.13 Red Fir / White-veined Shinleaf [*Abies magnifica* var. *magnifica* /*Pyrola picta*] (Jimerson 1993)
- ★88.200.14 Red Fir - Brewer Spruce / Sadler Oak - Thinleaf Huckleberry [*Abies magnifica* var. *magnifica*-*Picea breweriana*/*Quercus sadleriana*-*Vaccinium membranaceum*] (Jimerson 1993)
- 88.200.15 Red Fir - Mountain Hemlock / One-sided Shinleaf [*Abies magnifica* var. *magnifica*-*Tsuga mertensiana*/*Orthilia secunda*] (Jimerson 1993)
- 88.200.16 Red Fir - White Fir / Bracken [*Abies magnifica* var. *magnifica*-*Abies concolor*/*Pteridium aquilinum*] (Jimerson 1993)
- 88.200.17 Red Fir - White Fir / Heartleaf Arnica [*Abies magnifica* var. *magnifica*-*Abies concolor*/*Arnica cordifolia*] (Jimerson 1993)
- 88.200.18 Red Fir - White Fir / Creeping Snowberry / White-veined Shinleaf [*Abies magnifica* var. *magnifica*-*Abies concolor*/*Symphoricarpos mollis*/*Pyrola picta*] (Jimerson 1993)
- 88.200.19 Red Fir - White Fir / Creeping Snowberry - Wild Rose [*Abies*

		<i>magnifica</i> var. <i>magnifica</i> - <i>Abies concolor</i> / <i>Syphoricarpos mollis</i> - <i>Rosa gymnocarpa</i> ] (Jimerson 1993)
88.200.20		Red Fir - White Fir / Sadler Oak [ <i>Abies magnifica</i> var. <i>magnifica</i> - <i>Abies concolor</i> / <i>Quercus sadleriana</i> ] (Jimerson 1993)
88.200.21		Red Fir - White Fir / Pinemat Manzanita [ <i>Abies magnifica</i> var. <i>magnifica</i> / <i>Arctostaphylos nevadensis</i> ] (Jimerson 1993)
88.200.22		Red Fir - White Fir / Vanilla Leaf [ <i>Abies magnifica</i> var. <i>magnifica</i> - <i>Abies concolor</i> / <i>Achlys triphylla</i> ] (Jimerson 1993)
88.200.23		Red Fir [ <i>Abies magnifica</i> var. <i>magnifica</i> ] (Potter 1994)
88.200.24		Red Fir / Lodgepole Pine / Whiteflower Hawkweed [ <i>Abies magnifica</i> var. <i>magnifica</i> / <i>Pinus contorta</i> ssp. <i>murryana</i> / <i>Hieracium albiflorum</i> ] (Potter 1994)
88.200.25		Red Fir / Lodgepole Pine [ <i>Abies magnifica</i> var. <i>magnifica</i> / <i>Pinus contorta</i> ssp. <i>murryana</i> ] (Potter 1994)
88.200.26		Red Fir / Mule's Ears [ <i>Abies magnifica</i> var. <i>magnifica</i> / <i>Wyethia mollis</i> ] (Potter 1994)
88.200.27		Red Fir / Pinemat Manzanita [ <i>Abies magnifica</i> var. <i>magnifica</i> / <i>Arctostaphylos nevadensis</i> ] (Potter 1994)
88.200.28		Red Fir / Western White Pine / Pinemat Manzanita [ <i>Abies magnifica</i> var. <i>magnifica</i> / <i>Pinus monticola</i> / <i>Arctostaphylos nevadensis</i> ] (Potter 1994)
88.200.29		Red Fir - Western White Pine - Lodgepole Pine [ <i>Abies magnifica</i> var. <i>magnifica</i> - <i>Pinus monticola</i> - <i>Pinus contorta</i> ssp. <i>murryana</i> ] (Potter 1994)
88.200.30		Red Fir - Western White Pine [ <i>Abies magnifica</i> var. <i>magnifica</i> - <i>Pinus monticola</i> ] (Potter 1994)
88.200.31		Red Fir / Western White Pine / Bush Chinquapin [ <i>Abies magnifica</i> var. <i>magnifica</i> / <i>Pinus monticola</i> / <i>Chrysolepis sempervirens</i> ] (Potter 1994)
88.200.32		Red Fir - White Fir [ <i>Abies magnifica</i> var. <i>magnifica</i> - <i>Abies concolor</i> ] (Potter 1994)
88.200.33		Red Fir - White Fir - Jeffrey Pine [ <i>Abies magnifica</i> var. <i>magnifica</i> - <i>Abies concolor</i> - <i>Pinus jeffreyi</i> ] (Potter 1994)
88.200.34		White Fir - Sugar Pine - Red Fir [ <i>Abies concolor</i> - <i>Pinus lambertiana</i> - <i>Abies magnifica</i> var. <i>magnifica</i> ] (Potter 1994)
88.200.35		Shasta Fir / Black-laurel [ <i>Abies magnifica</i> var. <i>shastensis</i> / <i>Leucothoe davisiae</i> ] (Sawyer & Thornburgh 1977)
88.200.36		Shasta Fir / Huckleberry Oak [ <i>Abies magnifica</i> var. <i>shastensis</i> / <i>Quercus vaccinifolia</i> ] (Sawyer & Thornburgh 1977)
88.200.37		Shasta Fir / Twinflower [ <i>Abies magnifica</i> var. <i>shastensis</i> / <i>Linnaea borealis</i> ] (Sawyer & Thornburgh 1977)
88.200.38		Shasta Fir / White-veined Shinleaf [ <i>Abies magnifica</i> var.

- 88.200.39     *shastensis/Pyrola picta]* (Sawyer & Thornburgh 1977)  
 Shasta Fir / Pinemat Manzanita [*Abies magnifica* var.  
*shastensis/Arctostaphylos nevadensis*] (Simpson 1980)
- 88.200.40     Shasta Fir / Sadler Oak [*Abies magnifica* var. *shastensis/Quercus sadleriana*] (Simpson 1980)
- 88.200.41     Red Fir / Silver Lupine [*Abies magnifica* var. *magnifica/Lupinus albifrons*] (Waddell 1982)
- 88.200.42     Red Fir / White-veined Shinleaf [*Abies magnifica* var. *magnifica/Pyrola picta*] (Waddell 1982)

★88.300.00 Santa Lucia Fir [*Abies bracteata*]{84120}

- 88.300.01     Santa Lucia Fir / Santa Lucia Bedstraw [*Abies bracteata/Galium clementis*] (NDDB)
- 88.300.02     Santa Lucia Fir / Sword Fern [*Abies bracteata/Polystichum munitum*]

★88.400.00 Subalpine Fir [*Abies lasiocarpa*]

88.500.00     White Fir [*Abies concolor*]

- 88.500.01     White Fir / Bush Chinquapin [*Abies concolor/Chrysolepis sempervirens*] (Fites 1993)
- 88.500.02     White Fir / Creeping Snowberry / Kelloggia [*Abies concolor/Symporicarpos mollis/Kelloggia galoides*] (Fites 1993)
- 88.500.03     White Fir - Pacific Dogwood / Bush Chinquapin [*Abies concolor-Cornus nuttallii/Chrysolepis sempervirens*] (Fites 1993)
- 88.500.04     White Fir - Pacific Dogwood / Hazel [*Abies concolor-Cornus nuttallii/Corylus cornuta*] (Fites 1993)
- 88.500.05     White Fir - Pacific Dogwood / Trail Plant [*Abies concolor-Cornus nuttallii*] (Fites 1993)
- 88.500.06     White Fir / Ross Sedge [*Abies concolor/Carex rossii*] (Fites 1993)
- 88.500.07     White Fir / Solomon's Seal - Hooker Fairybells [*Abies concolor/Maianthemum racemosum-Disporum hookeri*] (Fites 1993)
- 88.500.08     White Fir / Trail Plant [*Abies concolor/Adenocaulon bicolor*] (Fites 1993)
- ★88.500.09     White Fir / Vine Maple - Bush Chinquapin [*Abies concolor/Acer circinatum-Chrysolepis sempervirens*] (Fites 1993)
- 88.500.10     White Fir / Pinemat Manzanita [*Abies concolor/Arctostaphylos nevadensis*] (Imper 1988a)
- 88.500.11     White Fir / Prince's-pine [*Abies concolor/Chimaphila umbellata*] (Sawyer & Thornburgh 1977b, Imper 1988a)
- 88.500.12     White Fir / Vanilla Leaf [*Abies concolor/Achlys triphylla*] (Imper 1988a)

- ★88.500.13 Port Orford-cedar - Shasta Fir / Sadler Oak - Thinleaf Huckleberry  
*[Chamaecyparis lawsoniana-Abies magnifica var. shastensis/Quercus sadleriana-Vaccinium membranaceum]* (Jimerson 1993)
- 88.500.14 Shasta Fir - White Fir / Mountain Maple [*Abies magnifica* var. *shastensis*-*Abies concolor/Acer glabrum*] (Jimerson 1993)
- 88.500.15 Shasta Fir - White Fir / Pinemat Manzanita [*Abies magnifica* var. *shastensis*-*Abies concolor/Arctostaphylos nevadensis*] (Jimerson 1993)
- 88.500.16 Shasta Fir - White Fir / Trail Penstemon - Pennyroyal [*Abies magnifica* var. *shastensis*-*Abies concolor/Penstemon anguineus-Monardella odoratissima*] (Jimerson 1993)
- 88.500.17 White Fir / Heartleaf Arnica [*Abies concolor/Arnica ordifolia*] (Jimerson 1993)
- 88.500.18 White Fir / Creeping Snowberry [*Abies concolor/Symphoricarpos mollis*] (Jimerson 1993)
- 88.500.19 White Fir - Douglas-fir / Bear-grass [*Abies concolor-Pseudotsuga menziesii/Xerophyllum tenax*] (Jimerson 1993)
- 88.500.20 White Fir - Douglas-fir / Bigleaf Maple [*Abies concolor-Pseudotsuga menziesii/Acer macrophyllum*] (Jimerson 1993)
- 88.500.21 White Fir - Douglas-fir / Heartleaf Arnica [*Abies concolor-Pseudotsuga menziesii/Arnica cordifolia*] (Jimerson 1993)
- 88.500.22 White Fir - Douglas-fir - Canyon Live Oak [*Abies concolor-Pseudotsuga menziesii-Quercus chrysolepis*] (Jimerson 1993)
- 88.500.23 White Fir - Douglas-fir / Sadler Oak [*Abies concolor-Pseudotsuga menziesii/Quercus sadleriana*] (Jimerson 1993)
- 88.500.24 White Fir - Douglas-fir / Sadler Oak - Pinemat Manzanita [*Abies concolor-Pseudotsuga menziesii/Quercus sadleriana-Arctostaphylos nevadensis*] (Jimerson 1993)
- 88.500.25 White Fir - Douglas-fir / Mountain Maple [*Abies concolor-Pseudotsuga menziesii/Acer glabrum*] (Jimerson 1993)
- ★88.500.26 White Fir - Douglas-fir / Rhododendron - Sadler Oak [*Abies concolor-Pseudotsuga menziesii/Rhododendron macrophyllum-Quercus sadleriana*] (Jimerson 1993)
- 88.500.27 White Fir - Douglas-fir / Vanilla Leaf [*Abies concolor-Pseudotsuga menziesii/Achlys triphylla*] (Jimerson 1993)
- 88.500.28 White Fir - Douglas-fir / Wild rose - Creeping Snowberry [*Abies concolor-Pseudotsuga menziesii/Rosa gymnocarpa-Symphoricarpos mollis*] (Jimerson 1993)
- 88.500.29 White Fir - Incense-cedar - Black Oak [*Abies concolor-Calocedrus decurrens-Quercus kelloggii*] (Jimerson 1993)
- 88.500.30 White Fir - Incense-cedar / Creeping Snowberry [*Abies concolor-Calocedrus decurrens/Symphoricarpos mollis*] (Jimerson 1993)

- 88.500.31 White Fir - Incense-cedar / White-veined Shinleaf [*Abies concolor-Calocedrus decurrens/Pyrola picta*] (Jimerson 1993)
- 88.500.32 White Fir / Little Prince's-pine - White-veined Shinleaf [*Abies concolor/Chimaphila menziesii-Pyrola picta*] (Jimerson 1993)
- 88.500.33 White Fir / Serviceberry [*Abies concolor/Amelanchier alnifolia*] (Jimerson 1993)
- 88.500.34 White Fir / Wild Rose [*Abies concolor/Rosa gymnocarpa*] (Jimerson 1993)
- 88.500.35 White Fir / Wild Rose - Creeping Snowberry [*Abies concolor/Rosa gymnocarpa-Symphoricarpos mollis*] (Jimerson 1993)
- 88.500.36 White Fir - Brewer Spruce / Sadler Oak - Thinleaf Huckleberry [*Abies concolor-Picea breweriana/Quercus sadleriana-Vaccinium membranaceum*] (Jimerson 1993)
- ★88.500.37 White Fir - Chinquapin [*Abies concolor-Chrysolepis chrysophylla*] (Jimerson 1993)
- ★88.500.38 White Fir - Chinquapin - Sugar Pine / Prince's-pine [*Abies concolor-Chrysolepis chrysophylla-Pinus lambertiana/chimaphila umbellata*] (Jimerson 1993)
- 88.500.39 White Fir - Douglas-fir / Alaska Oniongrass [*Abies concolor-Pseudotsuga menziesii/Melica subulata*] (Jimerson 1993)
- 88.500.40 White Fir - Douglas-fir / Sadler Oak - Huckleberry Oak [*Abies concolor-Pseudotsuga menziesii/Quercus sadleriana-Quercus vaccinifolia*] (Jimerson 1993)
- 88.500.41 White Fir - Douglas-fir / Hazel [*Abies concolor-Pseudotsuga menziesii/Corylus cornuta*] (Jimerson 1993)
- 88.500.42 White Fir - Douglas-fir / Huckleberry Oak [*Abies concolor-Pseudotsuga menziesii/Quercus vaccinifolia*] (Jimerson 1993)
- 88.500.43 White Fir - Douglas-fir / Thimbleberry [*Abies concolor-Pseudotsuga menziesii/Rubus parviflorus*] (Jimerson 1993)
- 88.500.44 White Fir - Douglas-fir / Vine Maple [*Abies concolor-Pseudotsuga menziesii/Acer circinatum*] (Jimerson 1993)
- 88.500.45 White Fir - Douglas-fir / Wild Rose - Twinflower - Creeping Snowberry [*Abies concolor-Pseudotsuga menziesii/Rosa gymnocarpa-Linnaea borealis-Symphoricarpos mollis*] (Jimerson 1993)
- 88.500.46 White Fir - Douglas-fir / Wild Rose - Twinflower [*Abies concolor-Pseudotsuga menziesii/Rosa gymnocarpa-Linnaea borealis*] (Jimerson 1993)
- 88.500.47 White Fir - Shasta Fir / Sadler Oak [*Abies concolor-Abies magnifica var. shastensis/Quercus sadleriana*] (Jimerson 1993)
- 88.500.48 White Fir - Shasta Fir / White-veined Shinleaf [*Abies concolor-Abies magnifica var. shastensis/Pyrola picta*] (Jimerson 1993)
- 88.500.49 White Fir - Shasta Fir / Threeleaf Anemone [*Abies concolor-Abies magnifica var. shastensis/Anemone deltoidea*] (Jimerson 1993)

- 88.500.50 White Fir / Huckleberry Oak [*Abies concolor/Quercus vaccinifolia*] (Laidlaw-Holmes 1981)
- 88.500.51 White Fir / Bracken [*Abies concolor/Pteridium aquilinum*] (Sawyer 1981b)
- 88.500.52 White Fir / Sadler Oak [*Abies concolor/Quercus sadleriana*] (Sawyer 1981b)
- 88.500.53 White Fir / American Vetch [*Abies concolor/Vicia americana*] (Sawyer & Thornburgh 1977)
- 88.500.54 White Fir / Little Oregon-grape [*Abies concolor/Berberis nervosa*] (Sawyer & Thornburg 1977)
- 88.500.55 White Fir / Prince's-pine [*Abies concolor/Chimaphila umbellata*] (Sawyer & Thornburgh 1977)
- 88.500.56 White Fir / Mahala Carpet [*Abies concolor/Ceanothus prostratus*] (Sawyer & Thornburgh 1977)
- 88.500.57 White Fir / Trillium [*Abies concolor/Trillium ovatum*] (Sawyer & Thornburgh 1977)
- 88.500.58 White Fir / Bitter Cherry [*Abies concolor/Prunus emarginata*] (Taylor & Randall 1977)
- 88.500.59 White Fir / Rattlesnake-plantain [*Abies concolor/Goodyera oblongifolia*] (Taylor & Randall 1977)
- 88.500.60 White Fir / Mountain Maple [*Abies concolor/Acer glabrum*] (Taylor & Teare 1979b)
- 88.500.61 White Fir / Sticky Starwort [*Abies concolor/Pseudostellaria jamesiana*] (Waddell 1982)
- 88.500.62 White Fir / White-veined Shinleaf [*Abies concolor/Pyrola picta*] (Waddell 1982)
- ★88.500.63 Desert Mountain White Fir Forest
- 88.500.64 Sierran White Fir Forest{84240}
- 88.600.00 Mixed Conifer{84230}
- ★88.600.01 Mixed Conifer / Bolander Bedstraw - Milkwort [Mixed Conifer/*Galium bolanderi-Polygala cornuta*] (Fites 1993)
- 88.600.02 Mixed Conifer / Huckleberry Oak [Mixed Conifer/*Quercus vaccinifolia*] (Fites 1993)
- 88.600.03 Mixed Conifer / Rosy Everlasting - Naked-stemmed Buckwheat [Mixed Conifer/*Antennaria rosea-Eriogonum latifolium*] (Fites 1993)
- 88.600.04 Mixed Conifer / Service Berry [Mixed Conifer/*Amelanchier alnifolia*] (Fites 1993)
- 88.600.05 Mixed Conifer / Canyon Live Oak - Huckleberry Oak [Mixed Conifer/*Quercus chryssolepis-Quercus vaccinifolia*] Fites 1993)
- ★88.600.06 Mixed Conifer / Starflower [Mixed Conifer/*Trientalis latifolia*] (Fites 1993)
- 88.600.07 Mixed Conifer - Canyon Live Oak / Hazel [Mixed Conifer-*Quercus*

- 88.600.08 *chrysolepis/Corylus cornuta*] (Fites 1993)  
 Mixed Conifer - Canyon Live Oak / Bolander Bedstraw [Mixed Conifer-*Quercus chrysolepis/Galium bolanderi*] (Fites 1993)
- 88.600.09 Mixed Conifer - Canyon Live Oak / Mountain Misery [Mixed Conifer-*Quercus chrysolepis/Chamaebatia foliolosa*] (Fites 1993)
- 88.600.10 Mixed Conifer - Canyon Live Oak / Sword Fern [Mixed Conifer-*Quercus chrysolepis/Polystichum munitum*] (Fites 1993)
- ★88.600.11 Mixed Conifer - Tanoak / Mountain Misery [Mixed Conifer-*Lithocarpus densiflora/Chamaebatia foliolosa*] (Fites 1993)
- ★88.600.12 Mixed Conifer - Tanoak / Creeping Snowberry / Iris [Mixed Conifer-*Lithocarpus densiflora/Symphoricarpos mollis/Iris spp.*] (Fites 1993)
- 88.600.13 Mixed Conifer / Little Oregon-grape [Mixed Conifer/*Berberis nervosa*] (Sawyer & Thornburgh 1977)
- 88.600.14 Mixed Conifer / Mahala Carpet [Mixed Conifer/*Ceanothus prostratus*] (Sawyer & Thornburgh 1977)

★88.700.00 Klamath Enriched Conifer Unique Stands{85400}{85410}{85420}

★88.800.00 Pacific Silver Fir Unique Stands

89.000.00 Juniper [*Juniperus* spp.]

89.100.00 California Juniper [*Juniperus californica*]

★89.100.01 Juniper-Oak Cismontane Woodland{71430}

★89.100.02 Cismontane Juniper Woodland & Scrub{72400}

★89.200.00 Mountain Juniper [*Juniperus* spp.]

89.200.01 Mountain Juniper [*Juniperus* spp.] (Potter 1994)

89.200.02 Mountain Juniper / Big Sagebrush [*Juniperus* spp./*Artemisia tridentata*] (Potter 1994)

89.300.00 Utah Juniper{72123}

89.400.00 Western Juniper

89.400.01 Northern Juniper Woodland{72110}

89.500.00 Singleleaf Pinyon - Utah Juniper [*Pinus monophylla-Juniperus* spp.]{72121}

## 90.000.000 ALPINE HABITATS

91.000.00 Boulder and Rock Field

91.100.00 Alpine Fell-field (= Alpine Habitat from book)

91.110.00 Klamath-Cascade Fell-field{91110}

91.120.00 Sierra Nevada Fell-field{91120}

- ★91.120.01 Sierra Primrose [*Primula suffrutenscens*] (Burke 1982)
- 91.120.02 Alpine Pussy-paws - Heretic Penstemon [*Antennaria alpina-Penstemon heterodoxus*] (Major & Taylor 1977)
- 91.120.03 Alpine Pyrrocoma [*Haplopappus aparigoides*] (Major & Taylor 1977)
- 91.120.04 Dense Draba - Sweetwater Mountain Milkvetch [*Draba densiflora-Astragalus kentrophyta* var. *danaus*] (Major & Taylor 1977, Taylor 1984)
- 91.120.05 Hairy Draba - Inyo Rock-cress [*Draba oligosperma-Arabis inyoensis*] (Major & Taylor 1977)
- 91.120.06 Muir Ivesia [*Ivesia muirii*] (Major & Taylor 1977)
- ★91.120.07 Netted Willow [*Salix nivalis*] (Major & Taylor 1977)
- 91.120.08 Podistera - King Sandwort [*Podistera nevadensis-Arenaria kingii*] (Major & Taylor 1977)
- 91.120.09 Podistera - Pygmy Daisy [*Podistera nevadensis-Erigeron pygmaeus*] (Major & Taylor 1977)
- ★91.120.10 Sibbaldia - Merten Rush [*Sibbaldia procumbens-Juncus mertensianus*] (Major & Taylor 1977)
- 91.120.11 Silky Raillardella - Tawny Buckwheat [*Raillardella argentea-Eriogonum incanum*] (Major & Taylor 1977)
- 91.120.12 Stemless Haplopappus - Old Man's Whiskers [*Stenotus acaulis-Geum canescens*] (Major & Taylor 1977)
- 91.120.13 Watson Spikemoss - Round-leaved Buckwheat [*Selaginella watsonii-Eriogonum ovalifolium*] (Major & Taylor 1977)
- 91.120.14 Western Needlegrass - Nude Buckwheat [*Stipa occidentalis-Eriogonum nudum*] (Major & Taylor 1977)
- ★91.120.15 Alpine Alumroot - Fragile Fern [*Heuchera rubescens-Cystopteris fragilis*] (Taylor 1984)
- 91.120.16 Alpine Goldenbush - Timberline Phacelia [*Ericameria discoidea-Phacelia frigida*] (Taylor 1984)
- ★91.120.17 Alpine Saxifrage - Woodrush [*Saxifraga tolmiei-Luzula divaricata*] (Taylor 1984)
- 91.120.18 Alpine Sedum - Watson Spikemoss [*Sedum roseum-Selaginella watsonii*] (Taylor 1984)
- 91.120.19 Alpine Smartweed [*Polygonum minimum*] (Taylor 1984)
- ★91.120.20 Alpine Timothy - One-spike Oatgrass [*Phleum alpinum-Danthonia unispicata*] (Taylor 1984)
- 91.120.21 Baltic Rush [*Juncus balticus*] (Taylor 1984)
- ★91.120.22 Arctic Willow [*Salix arctica*] (Taylor 1984)
- 91.120.23 Cordilleran Arnica - Davidson Arabis [*Arnica mollis-Arabis davidsonii*] (Taylor 1984)

- 91.120.24 Coville Phlox - Vagus Buckwheat [*Phlox pulvinata-Eriogonum incanum*] (Taylor 1984)
- 91.120.25 King Ricegrass - Coville Ragwort [*Oryzopsis kingii-Senecio scorzonella*] (Taylor 1984)
- 91.120.26 Lemmon Draba - Alpine Sorrel [*Draba lemmonii-Oxyria digyna*] (Taylor 1984)
- 91.120.27 Merten Rush [*Juncus mertensianus*] (Taylor 1984)
- ★91.120.28 Moss Saxifrage [*Saxifraga bryophora*] (Taylor 1984)
- 91.120.29 Mountain Sedum - Mountain Muhly [*Sedum obtusatum-Muhlenbergia montana*] (Taylor 1984)
- 91.120.30 Nested Saxifrage - Suksdorf Monkeyflower [*Saxifraga nidifica-Mimulus suksdorffii*] (Taylor 1984)
- 91.120.31 Nevada Claytonia [*Claytonia nevadensis*] (Taylor 1984)
- 91.120.32 Tiling Monkeyflower - One-sided Bluegrass [*Mimulus tilingii-Poa secunda*] (Taylor 1984)
- 91.120.33 Nuttal Sandwort [*Minuartia nuttallii*] (Taylor 1984)
- 91.120.34 Parry Rush - Vagus Buckwheat [*Juncus parryi-Eriogonum incanum*] (Taylor 1984)
- 91.120.35 Podistera - Pygmy Daisy [*Podistera nevadensis-Erigeron pygmaeus*] (Taylor 1984)
- 91.120.36 Showy Fescue - Davidson Penstemon [*Festuca minutiflora-Penstemon davidsonii*] (Taylor 1984)
- 91.120.37 Vagus Buckwheat - Silky Raillardella [*Eriogonum incanum-Raillardella argentea*] (Taylor 1984)
- 91.120.38 White Corn-lily - Arrowhead Butterweed [*Veratrum californicum-Senecio triangularis*] (Taylor 1984)

★91.130.00 Southern California Fell-field{91130}

91.140.00 White Mountains Fell-field{91140}

- 91.140.01 Mason's Sky Pilot - Vagus Fleabane [*Polemonium chartaceum-Erigeron vagus*] (Major & Taylor 1977)
- 91.140.02 Coville Phlox - Inyo Buckwheat [*Phlox covillei-Eriogonum gracilipes*] (Major & Taylor 1977)

91.150.00 Sweetwater Mountains Fell-field

- 91.150.01 Compact Phlox - Gordon Ivesia [*Phlox pulvinata-Ivesia muirii*] (Major & Taylor 1977)
- 91.150.02 Compact Phlox - Alpine Phoenicaulis [*Phlox pulvinata-Anelsonia eurycarpa*] (Major & Taylor 1977)
- 91.150.03 Compact Phlox - Small Haplopappus - Alpine Ipomopsis [*Phlox pulvinata-Ericameria suffrutenscens-Ipomopsis congesta*] (Major &

- Taylor 1977)
- 91.150.04 Compact Phlox - Sweetwater Lupine [*Phlox pulvinata-Lupinus montigenus*] (Major & Taylor 1977)
- 91.160.00 Subalpine Upland Shrub Habitat{includes 94000}
- 91.200.00 Alpine and Talus Scree Slope
- 91.210.00 Wet Alpine Talus and Scree Slope{91210}
- 91.220.00 Dry Alpine Talus and Scree Slope{91220}
- 91.300.00 Alpine Snowbank Margin{91300}
- 92.000.00 Alpine Snow and Ice Habitat
- 92.100.00 Alpine Snowfield{93100}
- 92.200.00 Alpine Glacier{93200}